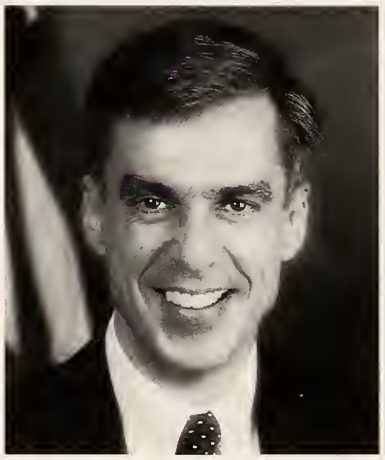
Assuring A Healthy Future Along The U.S.–Mexico Border

A HRSA PRIORITY

U.S. Department of Health and Human Services
HRSA
Health Resources and Services Administration

california
arizona
new mexico
texas

Letter from HRSA Administrator



Dear Colleagues,

The Health Resources and Services Administration (HRSA) has a long history with its community, State, and Federal partners in addressing the health care needs of people living along the U.S.- Mexico border. Because of poverty, poor housing, inadequate sanitation, and environmental health risks, border residents have a higher incidence of disease and disability and far less access to the essential preventive and primary health care they need. These problems are now escalating with recent population growth, which makes the situation even more demanding of our attention.

This publication, "Assuring a Healthy Future Along the U.S.-Mexico Border—A HRSA Priority," represents HRSA's more than $200 million investment since 1996 in the U.S.-Mexico Border Health Region. It details a rapidly escalating health care crisis that should be of extreme concern to everyone on both sides of the border.

The challenges before us require the combined commitment and focused effort of health care, social services, education, and environmental agencies, organizations, and policymakers. HRSA's own commitment is cross-cutting and comprehensive—our Bureaus of HIV/AIDS, Primary Health Care, Maternal and Child Health and Health Professions, and Offices of Rural Health Policy, Field Operations, and Telehealth make up our Border Health Workgroup. It's tightly focused on working with our partners to tackle the many health care challenges for the people living along the border. And HRSA's Dallas Field Office, San Francisco Field Office, and border health advisors working in State border health offices are making a difference every day. They were especially helpful in gathering data for this publication.

The health departments in California, Arizona, New Mexico, and Texas continue to be strong and vital players in creating a healthier U.S.-Mexico Border Region, and we appreciate our past and future partnerships. In addition to their significant leadership, their State border health offices assisted tremendously in our data collection process.

We hope this compilation of information on the health status and risks faced by border residents will help inform the effort, and that our next publication will reflect the success of our combined commitment.

Sincerely,

Claude Earl Fox, M.D., M.P.H., Administrator
Health Resources and Services Administration

Forward

The U.S.-Mexico border is one of the busiest in the world. In 1999, a projected 400 million crossings will take place along the 2,000 mile frontier. Freedom of movement between the two countries has created an unprecedented opportunity for economic, social, and cultural exchange. But increased traffic has also brought with it new threats to the environment and severe health challenges to the region's growing population. As binational traffic increases, border health issues will take on a greater national relevance than ever before.

A great deal of work has already taken place at the local, State and Federal levels to address health concerns along the border. The challenge now is to build on these efforts, and to develop a coordinated and comprehensive plan that will give residents of the border the health care they need.

Health challenges along the border, in fact, remain significant. If made the 51st State, the border area (which we define for this publication as 62.5 miles or 100 kilometers north of the border) would rank last in access to health care, second in death rates due to hepatitis, and third in deaths related to diabetes. Tuberculosis, which is becoming drug resistant, is six-times the national rate on the border. And vaccine-preventable measles and mumps are twice the national rate. In addition, HIV/AIDS is spreading rapidly, especially in large to mid-sized U.S.-Mexico sister cities and among farmworkers. As a State, the border area also would rank last in per capita income, first in numbers of school children living in poverty, and first in numbers of children who are uninsured.

In fact, nearly every border health issue is a symptom of the larger issue of poverty. The 11 million residents of border communities, from San Ysidro, California to Brownsville, Texas, experience some of the highest rates of poverty and lowest levels of educational attainment in the country. More than 30 percent of the families live at or below the poverty level. And an estimated three million residents are uninsured.

Environmentally, the picture is not much brighter. Raw sewage and toxic waste contaminate rivers and land, and air pollution levels greatly exceed standards set by the Environmental Protection Agency. These conditions impact daily the lives of nearly half a million border residents who reside in colonias—unincorporated communities that lack running water, sewers, storm drainage, electricity, and paved roads. The residents of colonias use contaminated water for cooking and drinking, which give rise to communicable, pollution-related illnesses such as dysentery, which is three to four times the national average. Respiratory aliments from air pollution are increasing, while food borne illnesses, such as Salmonella and amebiasis from soil pollution, are posing serious dangers to the population, particularly young children and older people.

Frequent movement between the two countries, and within the United States, has increased the potential for international spread of disease. It also has created difficulties in identifying affected populations, and in providing a continuity of health care for families and individuals.

This book contains four sections, one for each State along the U.S.-Mexico border—California, Arizona, New Mexico, and Texas—with brief descriptions of each State's border area, and an overview of select health disparities. The information in this book was gathered from a variety of sources and studies, and included valuable assistance from the California, Arizona, New Mexico, and Texas Health Departments, and the State Border Health Officers. The fluid and dynamic nature of the border population creates an ever-changing statistical picture. We hope this book will provide a starting point for discussion among the partners working to ease health disparities, increase access to health care, and ultimately, improve the lives of residents in the border area.

Overview

From 1996 through 1998, the Health Resources and Services Administration (HRSA) has invested more than $150 million in partnerships with border communities and States to provide border residents with primary health care, maternal and child health services, HIV/AIDS care, and programs to train and place health professionals where needed most. These partnerships represent a key component of the HRSA Border Health program effort. Through community and migrant health centers and other health care providers, children are now getting immunized, tuberculosis (TB) is being treated, and more people are receiving the primary and preventive care and support services needed to get and stay healthy. HRSA also is helping residents of the border solve health problems posed by poor sanitation and a polluted environment. In addition, the HRSA fiscal year 1999 budget identified an additional $6.4 million (over the base annual funding of some $60 million) specifically to support HRSA activities to increase access to health care on the border.

HRSA's investment in the border area includes:

- HRSA and the EPA joined forces in 1998 to reduce and treat the effects of pollution. EPA is tracking down sources of waterborne raw sewage, industrial waste, soil filled with toxic waste, and airborne carbon monoxide, and ozone. HRSA is training clinicians and "promotoras" (community health outreach workers) to help border residents fight the health risks of water, soil, and air pollution.

- In 1998, HRSA's Office of Field Operations stationed five public health advisors along the border through memoranda of understanding with State health departments in all four border States. This expert bilingual staff includes two medical epidemiologists, a registered environmental sanitarian, and two senior public health advisors. They serve as HRSA's "eyes and ears" on the border, and are a clear demonstration of HRSA's commitment to increase links with community-based providers and the broader public health community.

- HRSA is a major partner in a binational effort called Ten Against TB. Working with health officials from all 10 U.S.-Mexico border States, and the Centers for Disease Control and Prevention, Ten Against TB is helping curb the growing number of TB cases along the border, especially those that are multi-drug resistant—now increasing at 10 percent per year in some border areas. HRSA and the Texas Department of Health also have trained 200 American and Mexican health providers and outreach workers to administer "direct observed therapy"—which makes sure TB patients successfully complete their full treatment.

- HRSA's Border Vision Fronteriza outreach project is using promotoras from border cities to enroll thousands of children in the Children's Health Insurance Program and Medicaid. And HRSA's Bureau of Primary Health Care has awarded approximately $4 million in grants to border community and migrant health centers to expand services along the border and provide better access to residents.

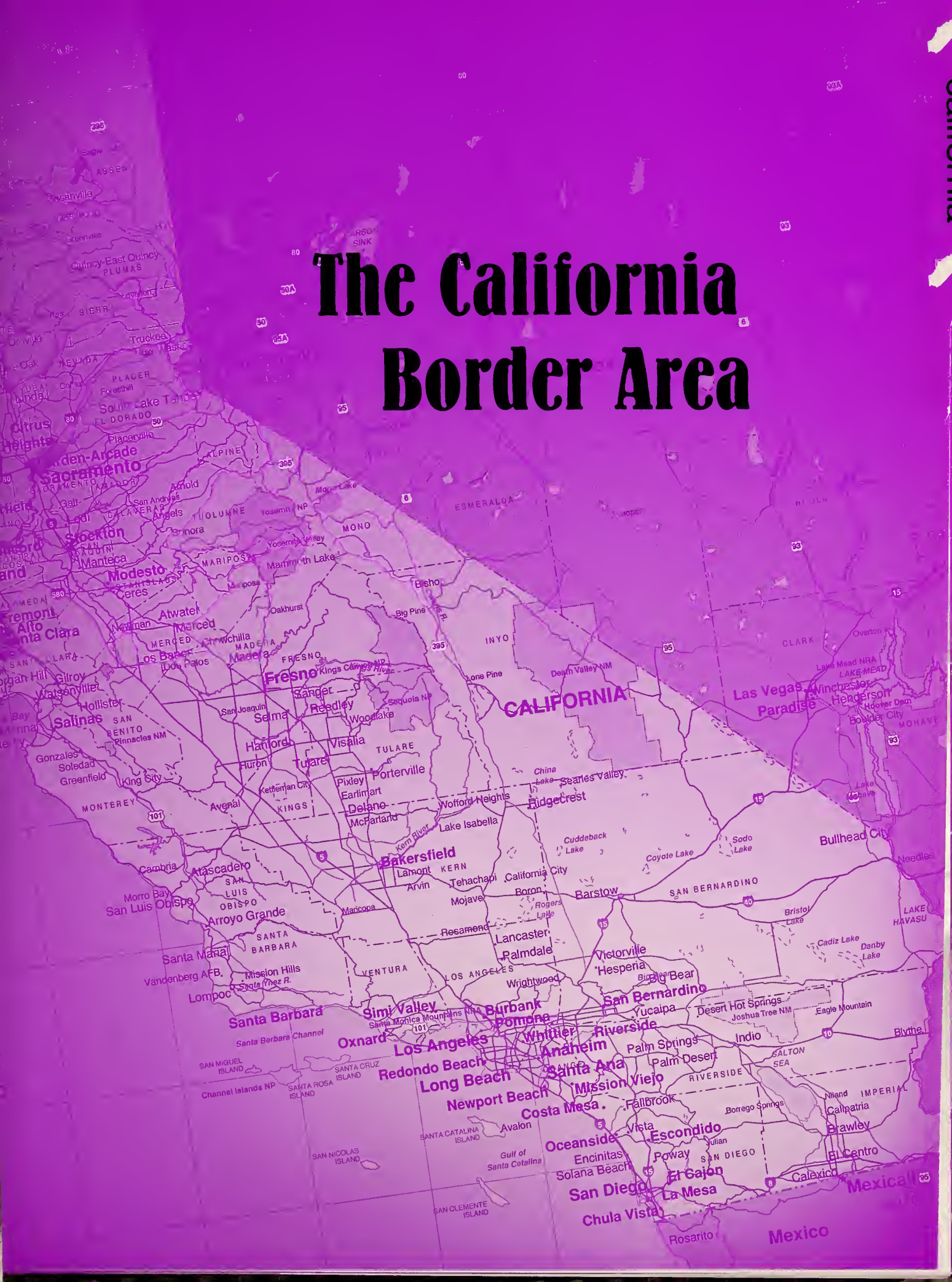
- The Healthy Start Program, funded by HRSA's Maternal and Child Health Bureau, reaches out to pregnant women in border communities at high risk for premature birth and premature death of newborns. Promotoras encourage women to begin prenatal care early in their pregnancies; to get the fathers involved; and to help pregnant women receive essential services, such as proper nutrition, education, and health care.

- The HRSA Border Health Program has developed 10 public/private sector partnerships since 1996, and expanded by as many as 15 the number of primary health care delivery sites and Healthy Start sites. These partnerships have tackled communicable diseases and illnesses resulting from air, water, and soil pollution, and have placed culturally appropriate primary care providers in health professional shortage areas.

- HRSA's HIV/AIDS Bureau worked with the National Council of La Raza and Farmworker Justice Fund to train farmworkers as HIV/AIDS promotoras in the border communities of Yuma-San Luis, Arizona and the Lower Rio Grande Valley of Texas. Training included AIDS prevention education, testing, referrals, and counseling. HRSA's efforts also include supporting outpatient medical services, case management, outreach, and training health professionals.

The health challenges in the U.S.-Mexico border area are indeed daunting. It will take a coordinated and sustained effort by many partners at the local, State, and Federal level to meet our goals: increasing access to health care, improving child health, eliminating health disparities, improving environmental health, and improving the quality of life for all who live and work along the border.

The California Border Area



california

arizona

new mexico

texas

The California Border Area

California Border Demographics

- The 140 mile-long California-Mexico border area includes San Diego and Imperial counties and the lowermost portion of Riverside County. The area has an estimated population of 4.4 million.
- Approximately 13 percent of California's population resides in the defined area with nearly 29 percent under the age of 20.

- San Diego County is situated along the Pacific Ocean coast with three ports of entry into Mexico: San Ysidro, Otay Mesa, and Tecate. About 131,500 legal border crossings a day are made through these ports of entry.
- The San Diego/Tijuana sister community, with a population of approximately 3.3 million, is the largest binational metropolitan area in the entire U.S.-Mexico border area. The entire California border is home to about 40 percent of the U.S.-Mexico borderwide population.

- The city of Chula Vista, located seven miles from the border, is the second most populated city in San Diego County with a population of 261,694. Other important border communities in San Diego County include San Ysidro, South Bay, Otay, and National City.

- Imperial County borders Yuma, Arizona to the east and Mexico to the south. The area is predominantly rural, sparsely populated, and considered a frontier county. Two border crossings are located between Imperial County and Mexicali, Mexico, providing access for more than 60,000 people on a daily basis. A third border crossing is under construction. Growing communities in Imperial County include Calexico, El Centro, Imperial, Brawley, and Holtville.

Educational Attainment

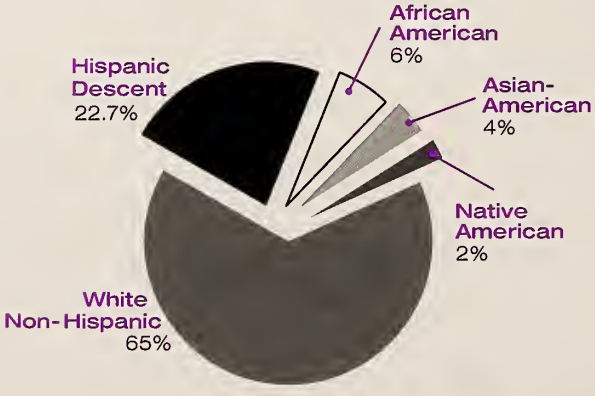
- In Imperial County, about 47 percent of adults 25 years and older have not completed high school.

Ethnicity

- In San Diego County, Hispanics of Mexican descent comprise nearly 25 percent of the entire population. The city of Chula Vista is 37 percent Hispanic and San Ysidro is 50 percent Hispanic. The latest research projects an increase of 31.9 percent in the Hispanic population in the border area by the year 2015.

- Imperial County has approximately 95,000 residents of Mexican descent, more than 68 percent of the county's population.

- Eighteen Indian tribes live in the California border area: 17 tribes in San Diego County and one in Imperial County.



San Diego County Ethnicity

SOURCE: CALIFORNIA DEPARTMENT OF FINANCE, 1996

Access to Primary Health Care Services

Lack of Health Insurance

- Approximately 19 percent of residents in the California border area are uninsured. Approximately 59 percent of uninsured residents in the border area are full time workers and/or their dependents.
- In San Diego County, the major sources of employment include service jobs such as restaurant work, and construction and seasonal farmwork—all occupations that traditionally do not provide health insurance.
- In Imperial County, agriculture is the primary source of employment, providing thousands of jobs to migrant and seasonal farmworkers each year, but providing no health insurance. Other major employers include county and State governments.
- In San Diego County, nearly four out of every 10 Hispanics (38.5 percent) under the age of 65 are without private or public health coverage.

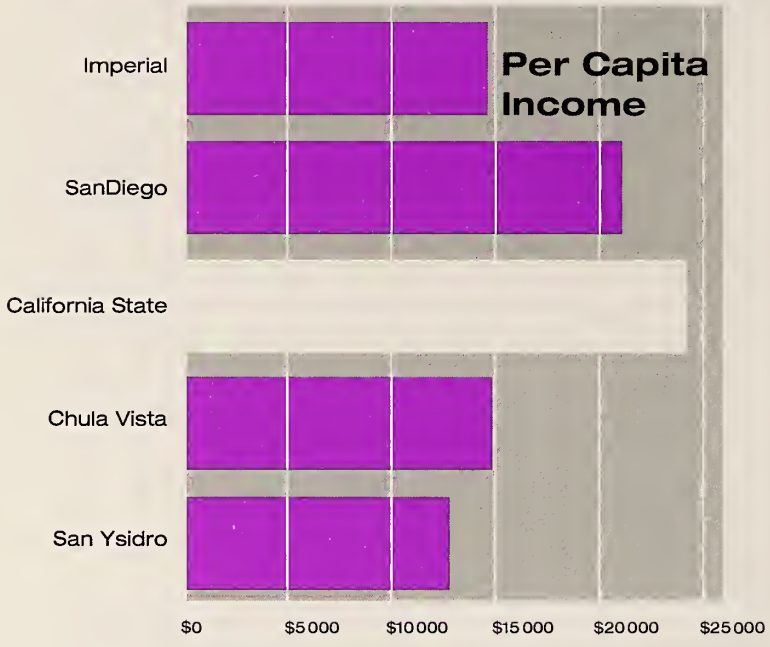
Poverty and Unemployment are Higher in Border Area

- The San Diego County border communities of Chula Vista and San Ysidro have considerably lower per capita incomes than the county, State, and country.
- In Imperial County, the per capita income is $14,790, almost half that of the State.
- The unemployment rate in Imperial County is approximately 29 percent, more than three times greater than the State unemployment rate. It peaks up to 34 percent due to seasonal variations in agricultural employment.

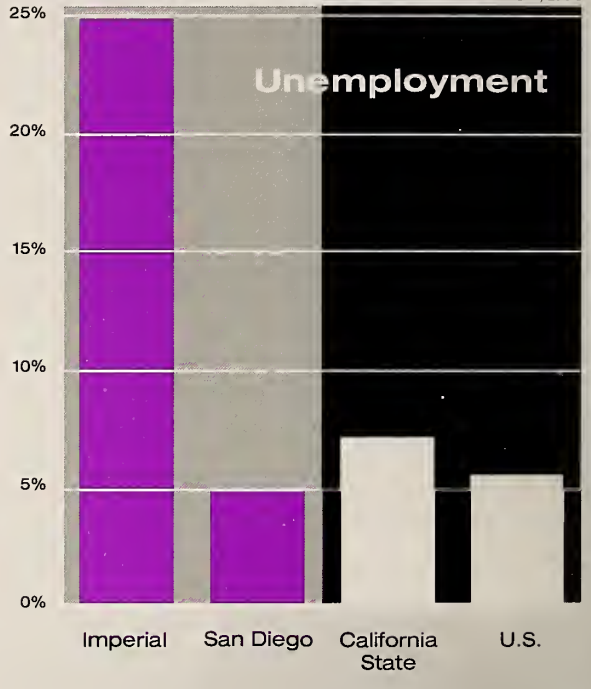
Financial Barriers

In Imperial County, remote areas and limited public transportation impede access to available health care services. This is especially true for the large migrant farmworker population.

SOURCE: CALIFORNIA DEPARTMENT OF FINANCE, 1998



SOURCE: CALIFORNIA DEPARTMENT OF FINANCE, 1998



Non-Financial Barriers

Shortage of Health Care Professionals

- San Diego County is designated as a "partial county" health professional shortage area (HPSA) for primary medical care services. A HPSA designation indicates a ratio of less than one health professional per 3,000 people.
- Imperial County is designated as a "partial county" HPSA for primary medical care services. The designation covers more than 75 percent of the county's population and is adjusted to include migrant farmworkers. The population's health needs are served in part by physicians who travel from the cities of San Diego and Los Angeles.
- The ratio of primary care providers in Imperial County is 23.2 per100,000 population compared to 65.7 primary care providers per 100,000 for the country.
- The area suffers a shortage of bilingual (Spanish/English) and culturally trained health professionals.

Other Barriers Hinder Proper Health Care

- The ease and frequency of movement accross the border, particularly by unaccompanied men working the migrant stream, makes it difficult to maintain a continuity of quality medical care.
- Clinic hours that are not compatible to a long six-day work week, concerns about being labeled a "public charge," issues about residency status, and a lack of culturally and linguistically trained outreach workers and providers also impedes access to care.

Health Disparities

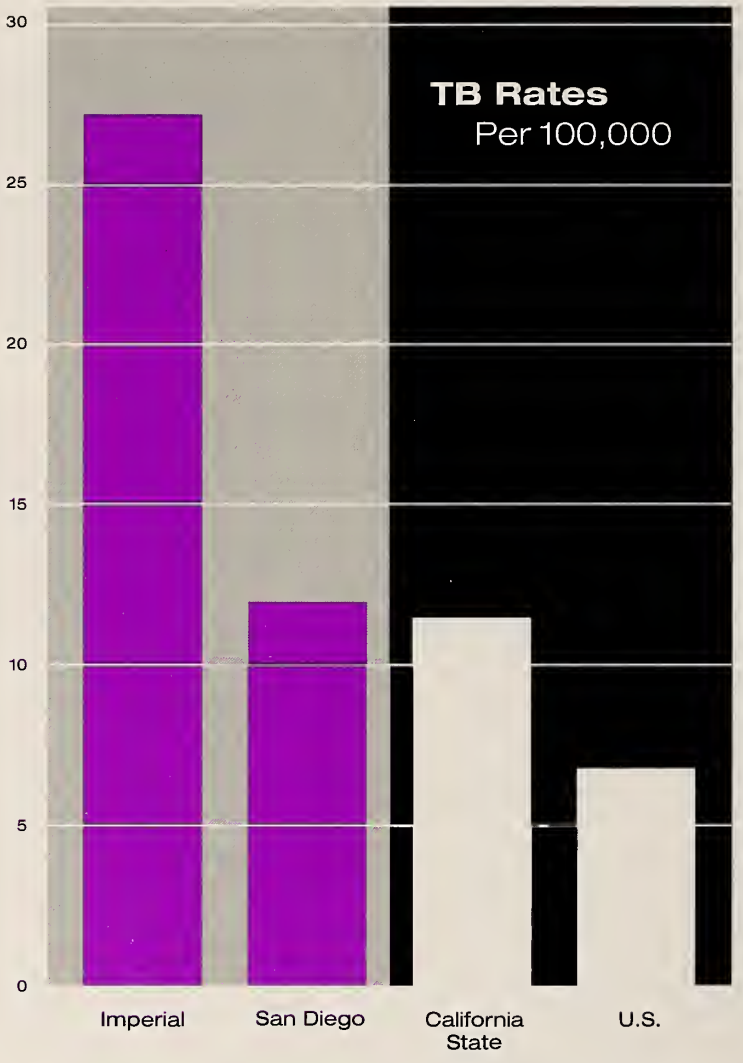
- In San Diego County, Hispanic women experience higher than normal rates of gestational diabetes (diabetes developed during pregnancy), which is considered an indicator for risk of developing Type II diabetes later in life.
- The estimated prevalence of diabetes in Imperial County is slightly higher than that for the State (5.2 percent versus 4.4 percent). However, limited data is available on the prevalence of diabetes and its effect on populations living in the border area.
- Diabetes is two to three times more prevalent among Mexican-Americans than Non-Hispanic Whites.
- Diabetes requires close medical follow-up and a high degree of medical care and self-care. Poverty, low educational attainment, and cultural practices may limit utilization of traditional health systems and adherence with advised medical treatment. Other factors, including frequent mobility, linguistic and cultural barriers, and limited knowledge regarding health maintenance, may also hinder the ability to prevent serious complications.
- The large Hispanic population in the border area experiences a high degree of known risk factors for Type II diabetes. Some of these include obesity, overall body distribution of obesity, physical inactivity, and diet.
- Innovative outreach and intervention of diabetic care that take into account the culture, language, and living conditions of border populations are needed.

Diabetes

Difficulties gaining access to health care may contribute to the frequent micro-vascular complications from diabetes experienced by residents of border communities.

Tuberculosis

The reported TB rate per 100,000 population in Imperial County is more than twice that of the State and four times greater than the national rate.



SOURCE: CALIFORNIA DEPARTMENT OF HEALTH SERVICES, 1998

- San Diego County is recognized by the Centers for Disease Control and Prevention as one of the 13 highest TB incidence areas in the country.
- Treatment for active TB requires an uninterrupted six-month period of oral medications. Multi-drug resistant tuberculosis (MDRTB) occurs when a patient begins but does not complete the treatment. Treating MDRTB can cost from $100,000 to $200,000 per case, which is prohibitive to overburdened health care services and individuals lacking sufficient health insurance.
- In 1997, eight percent of the TB cases in Imperial County were classified as MDRTB.

HIV/AIDS

- As of May 1999, San Diego County reported 9,873 cumulative AIDS cases. Imperial County reported 101 cases.
- In San Diego County, Hispanics represent 17.5 percent of the cumulative reported AIDS cases and represent 26 percent of the cases reported since 1997. In Imperial County, Hispanics represent the largest ethnic/racial group affected by AIDS.
- Cases of AIDS have increased most dramatically among women, people of color, and youth along the border area.
- Epidemiological data do not give the total picture of HIV/AIDS in the border area. Many experts believe that considerable under reporting occurs. Contributing factors include the multifaceted barriers to accessing care in the border area, frequent cross-border travel, patients who seek care in Mexico, and issues of culture and confidentiality.

Child Health

Uninsured

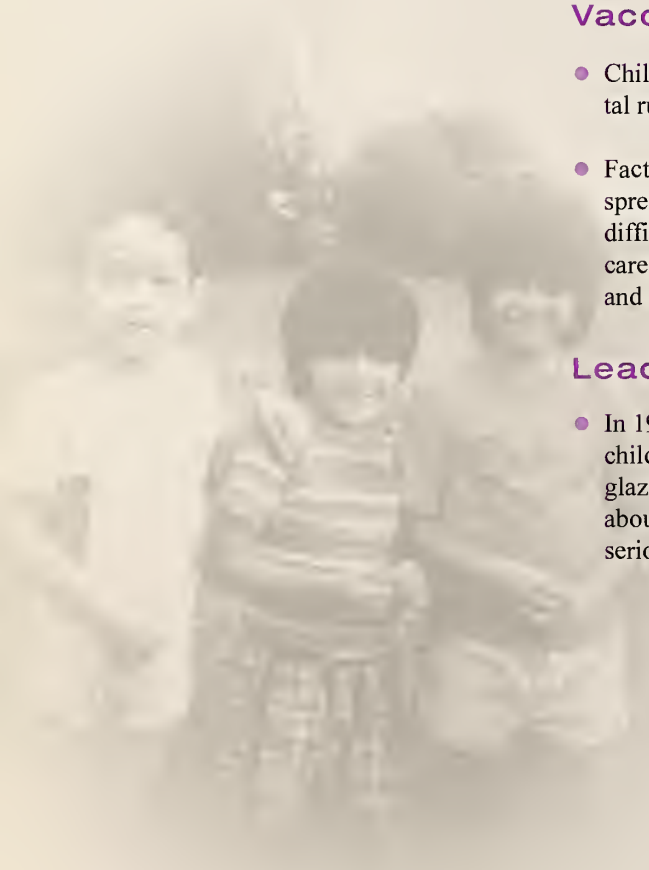
- In California, Hispanic children account for 60 percent of uninsured children who are eligible for Medicaid but do not receive it.
- Hispanic children have the highest uninsured rates in the country at 29 percent.
- Culture, language, and immigration status of family members contributed to limited enrollment of qualified children in Medicaid, and in the Children's Health Program. Other barriers to enrollment included location of enrollment sites, fear of being labeled as "public charge," and not understanding eligibility criteria.

An estimated 232,000 uninsured children live in the California border area.

- Educators have found that students who have their basic health needs met spend more time in school, are more motivated and attentive, and are better able to realize their full potential.
- Children with health insurance are more likely to receive basic primary health services.

Vaccine Preventable Illnesses

- Children in the California border area experience higher rates of congenital rubella syndrome than the rest of the State and the country.
- Factors that contribute to incomplete immunization coverage and the spread of vaccine preventable illnesses include cross-border migration, difficulty accessing basic health services, and families seeking medical care on both sides of the border. Differences also exist between the type and schedule of immunizations given in the United States and Mexico.



Lead Exposure

- In 1994 in San Diego County, Hispanic children made up the majority of children identified with elevated levels of lead in their blood. The use of glazed Mexican pottery in food preparation was linked to the cause in about one-third of the cases. High levels of lead in children can cause serious neurological problems, which may be irreversible.

Environment

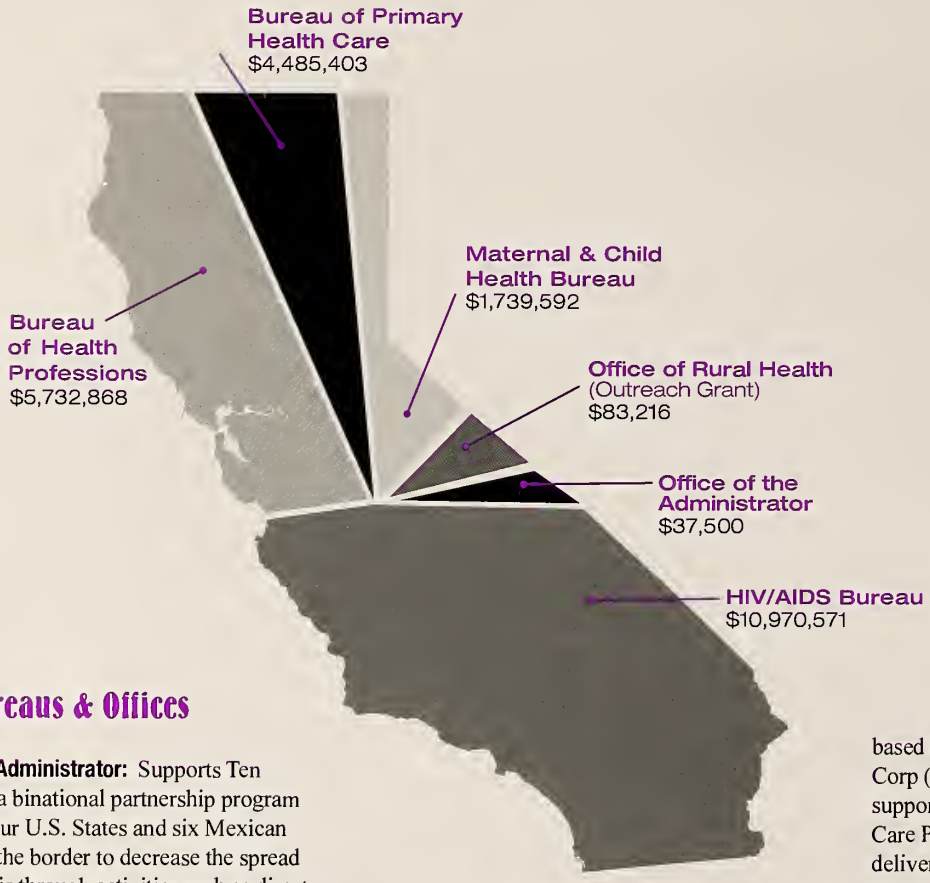
Water Pollution

- The New River, which flows through Mexicali, Mexico, and Imperial County, and terminates in the Salton Sea, has been cited as one of the most polluted rivers in the United States. High levels of agricultural chemicals, raw sewage, and industrial waste are the main contaminants.
- As the New River flows through communities in Imperial County, contaminated foam often blows into populated areas creating the potential for serious health hazards.
- The flow of untreated sewage into ocean waters between San Diego and Tijuana periodically results in closure of the beaches. Water pollution can make fish unsuitable for human consumption and pose health hazards.

Air Pollution

- Increased air pollution on both sides of the border is caused in part by population growth, increased industrialization, and agricultural practices.
- Other contributing factors include more vehicles, especially older models without catalytic converters and diesel vehicles carrying cargo, more maquiladoras or industrial plants (1,500 in the borderwide area as of 1998), high pesticide saturation levels, and open air burning.
- Solid particulate (dust and ash from open air burning), carbon monoxide, sulfur dioxide, and ozone are the contaminants of main concern in the California/Baja California area.
- The rate of hospitalization for childhood asthma is higher in Imperial County than that of the entire State.
- It is believed that communities beyond the 100-kilometer border area also are affected by pollution originating along the border.

HRSA Resources in the California-Mexico Border Area



HRSA Bureaus & Offices

Office of the Administrator: Supports Ten Against TB, a binational partnership program among the four U.S. States and six Mexican States along the border to decrease the spread of tuberculosis through activities such as direct observed therapy and standard protocols.

Office of Rural Health: (Outreach Grant) Assists rural communities rebuild their health care services by supporting initiatives such as improving recruitment and retention of health professionals and demonstrating innovative models to address rural health problems. Outreach demonstration grants support delivery of health services through health education and promotion activities and other related services.

Bureau of Health Professions: Includes Nurse Practitioner/Nurse Midwife Training; Border Health Education & Training Centers; Health Careers Opportunities Program (to assist disadvantaged students in completing health professional studies); and Centers of Excellence (to assist eligible schools in supporting health professional programs for underrepresented minority students).

HIV/AIDS Bureau: Includes the Ryan White Title I (emergency assistance to qualified metropolitan areas for local planning councils and various services including primary care, and emergency financial case management); Title II (funding provided to States, AIDS Drug Assistance Program, and activities including home health insurance continuation and regional HIV care consortia); Title III (early intervention services, direct outpatient health services, and planning activities); Title IV (funding for Women, Children, Youth & Families, and Access to Research programs); and Special Programs of National Significance SPNS (demonstrations of innovative models of health and support for individuals with HIV).

Bureau of Primary Health Care: Includes Health Care for the Homeless (to coordinate and deliver health care services using a multidisciplinary approach to homeless individuals); Healthy Schools/Healthy Communities (to promote school-based health centers for providing comprehensive health services to high risk children); Community/Migrant Health-Center (to deliver primary health services through private, non-profit community-based health centers); National Health Service Corp (increases access through placement and support of health care providers); Primary Care Public Housing (to increase access to delivery of primary health care services at public housing establishments or other nearby locations); Border Vision Fronteriza (a three year demonstration project to increase access to primary health services through outreach and community education services utilizing lay health workers); and Data Infrastructure Contract (a three year demonstration contract to address issues of collecting health-related data and sharing information among entities in the border area).

Maternal & Child Health Bureau: Includes Title V Block Grants awarded to state governments to provide maternal and child health services such as prenatal care, school health, direct care and enabling services. Other various MCHB funds have been awarded to universities, community health centers, county health departments, and community coalitions in California to facilitate Border Health CHIP Outreach, teen abstinence, Neighborhood Partnerships, Infant care, Emergency medical services for children, provider training, oral health and dental sealant, and quality child care (at San Ysidro). There is also a Healthy Start infant mortality reduction project in Los Angeles.

Sources for More Information

HRSA Border Health Unit
Bureau of Primary Health Care
Division of Programs for Special Populations
4350 East West Highway, 7th floor
Bethesda, Maryland 20814
Phone: 301-594-4897; Fax: 301-594-4997
Website: http://www.bphc.hrsa.gov/borderhealth

HRSA Office of Field Operations
Room 11-25, 5600 Fishers Lane
Rockville, Maryland 20857
Phone: 301-443-7070; Fax: 301-443-2173

HRSA Border Health Program
San Francisco Field Office-Border Health Advisor/San Diego
Federal Office Building, 50 UN Plaza
San Francisco, California 94102
Phone: 415-437-8090; Fax: 415-437-8003

Environmental Protection Agency, Border XXI
National Health & Environmental Effects Research Laboratory MD 87
Research Triangle Park, North Carolina 27711
Phone: 919-541-2283; Fax: 919-541-4201

Centers for Disease Control and Prevention
Office of Global Health
4770 Buford Highway, N.E., MS-KO1
Atlanta, Georgia 30341-3724
Phone: 770-488-1072; Fax: 770-488-1004

California State Department of Health Services
California Office of Border and Binational Health
Division of Communicable Disease Control
2151 Berkeley Way, Room 708
Berkeley, California 94704
Phone: 510-540-3503; Fax: 510-540-2570

California Office of Binational Border Health
3851 Rosecrans Street, P.O. Box 85524 MS P511B
San Diego, California 92138-5524
Phone: 619-692-8472; Fax: 619-692-8821

Imperial County Public Health Services
Border Health Office
935 Broadway
El Centro, California 92243-2396
Phone: 760-339-4704; Fax: 760-352-9933

Pan American Health Office
6006 North Mesa, Suite 600
El Paso, Texas 79912
Phone: 915-581-6645; Fax: 915-833-4768

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Imperial County Health Department/Border Health Office

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San Diego County Health Department/Border Health Office

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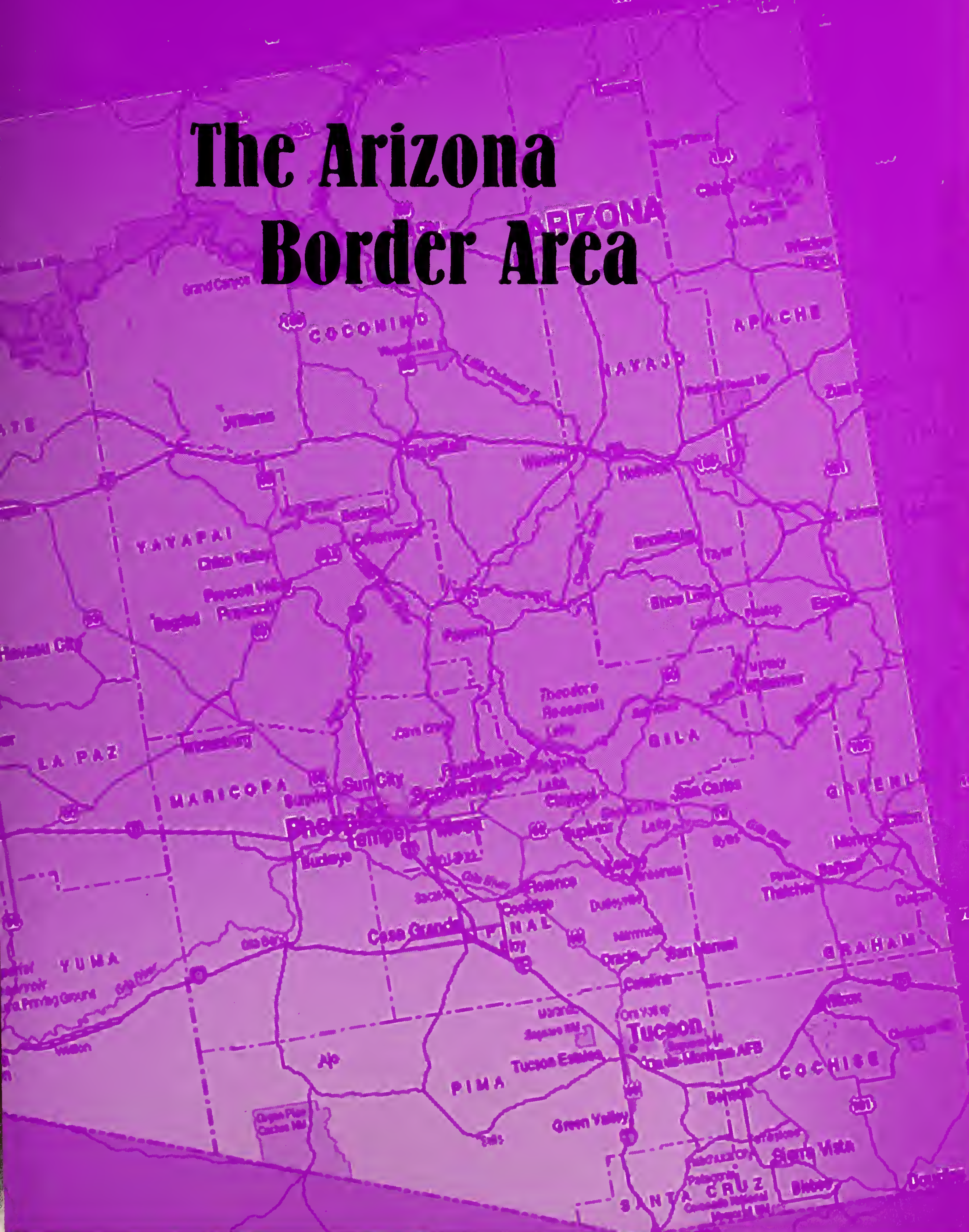
The Arizona Border Area



arizona

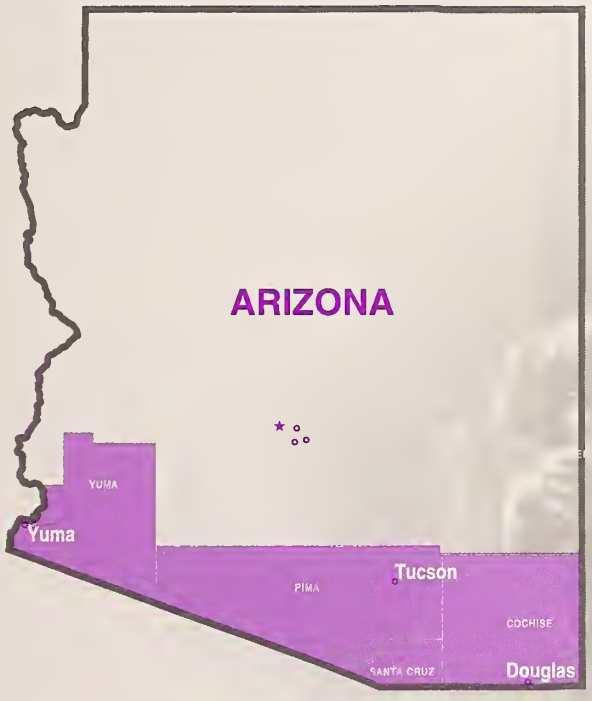
new mexico

texas

The Arizona Border Area

Arizona Border Demographics

- The Arizona border region extends for more than 300 miles, from the town of Yuma in the west to the town of Douglas in the east. The region has an estimated population of approximately 4 million people, and encompasses seven counties. Four of these counties are situated directly adjacent to the border: Yuma, Pima, Santa Cruz, and Cochise. Only the lowermost portions of Maricopa, Pinal and La Paz counties are located in the defined area.



- The main Arizona towns located within the border region include Yuma, Somerton and San Luis (Yuma County), Nogales (Santa Cruz County), Douglas (Cochise County), and Tucson (Pima County).

- Three neighboring U.S./Mexico communities, referred to as "sister cities," are located along the Arizona/Mexico border: Yuma/San Luis Rio Colorado, Nogales/Nogales, and Douglas/Agua Prieta. The entire U.S./Mexico border includes a total of 12 sister city communities.

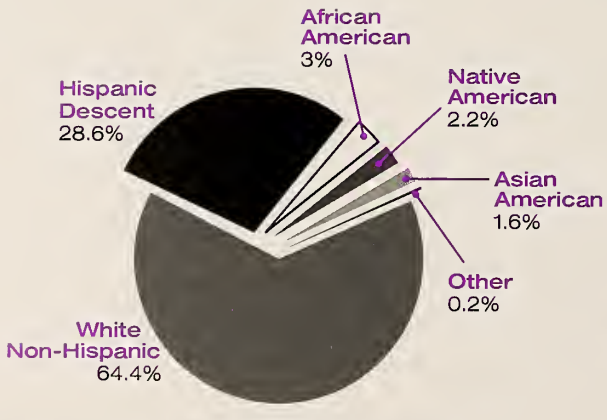
- Although five of the seven counties are considered metropolitan areas, the border region is largely rural desert surrounded by mountain ranges. Santa Cruz and Cochise counties are sparsely populated and considered frontier counties.

Rapidly Growing Population

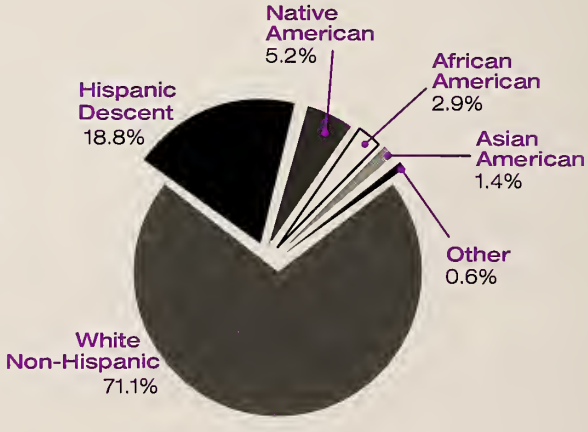
- In recent years there has been considerable migration of retirees to areas such as Santa Cruz County. Other areas, such as Yuma County, experience large fluctuations in populations due to seasonal tourists and migrant farmworkers.
- From 1990-98, the border area's population grew by about 21.5 percent.
- The border birth rate is higher than the rest of the State at 24 births per 1,000 population compared to 15 births per 1,000 population for the State.

Hispanic Population Continues to Grow

- Hispanics of Mexican descent account for about one-fourth of the border population. Yuma and Santa Cruz counties have the highest percentage of Hispanics at 41 percent and 78 percent respectively.
- Four Native Indian tribes reside in the four counties contiguous to the border.



Ethnicity in Border Populations



Ethnicity in Arizona

SOURCE: ARIZONA DEPARTMENT OF HEALTH SERVICES, 1999

Educational Attainment

- In Yuma County, approximately 21 percent of adults over the age of 25 have less than a ninth grade education compared to 9 percent for the rest of the State.
- In Somerton and San Luis, towns adjacent to the border and located in Yuma County, only 9 percent of adults over 25 years of age have completed high school.

Access to Primary Health Care Services

Financial Barriers

Lack of Health Insurance

- Approximately 28 percent of the Arizona border population is uninsured.
- Among the border states, Arizona has the highest percentage of uninsured residents.

Poverty

- Twenty-three percent of the Arizona border population lives below the poverty level.
- In the Yuma County towns of Somerton and San Luis, 81.2 percent and 80.9 percent respectively live below 200 percent of the poverty level.

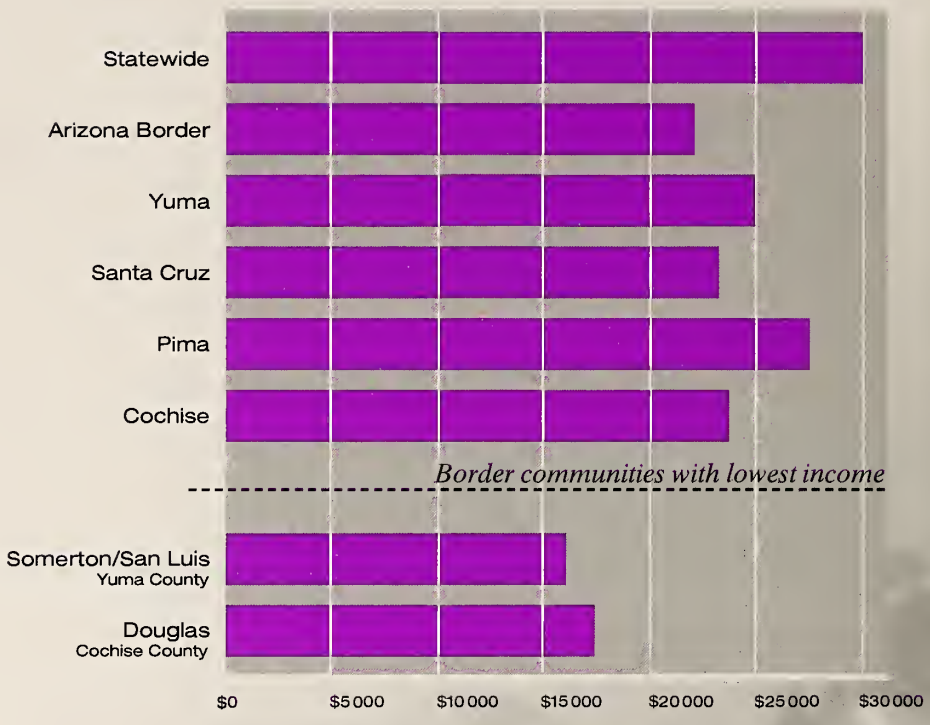
Unemployment Rates are Higher

- In 1996, Arizona border counties had unemployment rates twice that of the State and the country. The highest rates are in the towns of Somerton at 28.9 percent, San Luis at 62.2 percent, and Douglas at 16.4 percent.
- Unemployment in areas such as Yuma County can reach up to 40 percent due to large numbers of seasonal farmworkers in the area.

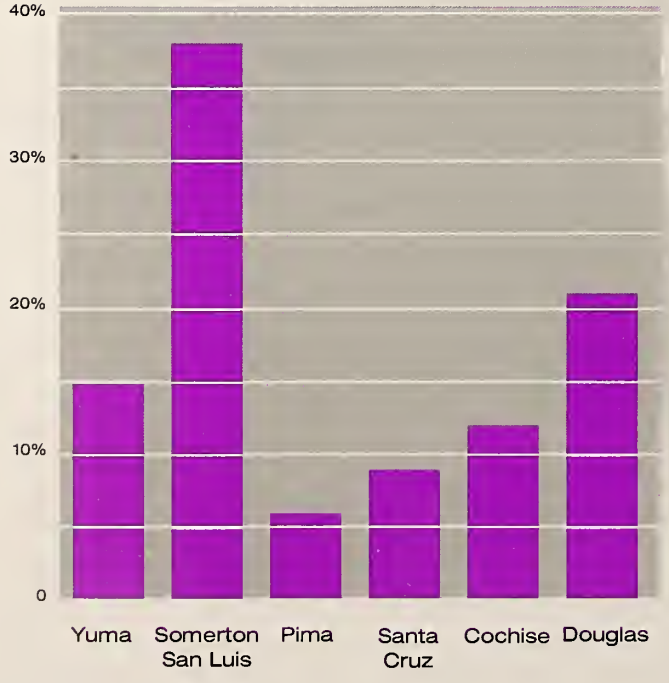
Non-Financial Barriers

Shortage of Health Care Professionals

- Santa Cruz County has been designated by the Federal Government as a health professional shortage area (HPSA) for primary health care services, indicating a ratio of less than one heath care professional per 3,000 people. All other counties on the border have partial designations.
- All Arizona border counties, with the exeption of Cochise, are designated as HPSA for dental services. All counties, with the exeption of Santa Cruz, are designated as HPSA for mental health services.
- Douglas County has a physician-to-population ratio of one physician for every 2,579 people compared to the State ratio of one physician for every 1,935 people.
- Other factors that inhibit utilization of traditional health care systems include cultural and linguistic differences, limited clinic hours of operation, limited public transportation, and a lack of Hispanic and American Indian health professionals.



SOURCE: PRIMARY CARE AREA STATISTICAL PROFILES/ABCHI, 1996



Unemployment is Higher Along the Border

SOURCE: PRIMARY CARE AREA STATISTICAL PROFILES/ABCHI, 1996

Health Disparities

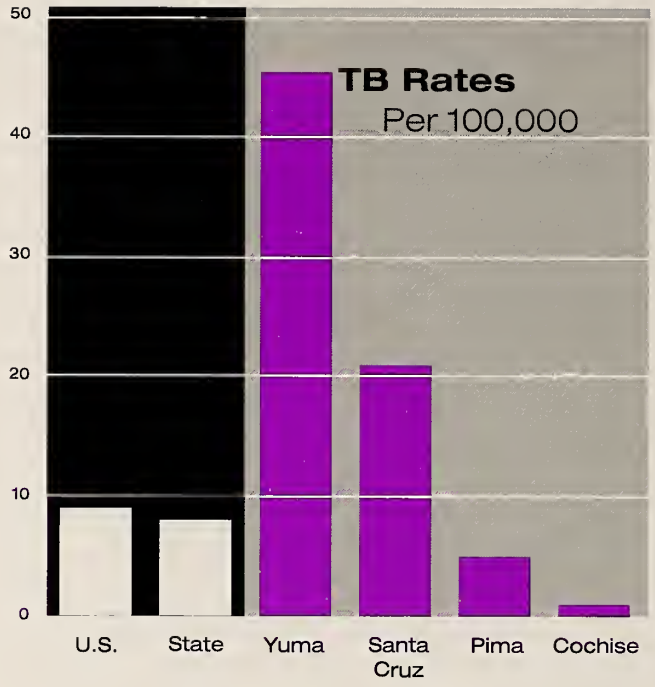
- Deaths due to diabetes are slightly higher in the border area compared to the State. The highest death rates are in Yuma and Santa Cruz counties.
- Diabetes is two to three times more prevelant among Mexican-Americans than Non-Hispanic whites.
- Higher rates of micro-vascular complications (damage to small blood vessels) occur among diabetic Mexican-Americans than Non-Hispanic whites.
- People with diabetes are more likely to suffer from damage to the eyes (retinopathy) and kidneys (nephropathy). Nerve damage leading to loss of sensation in the feet also occurs more often among diabetics, putting them at risk for injury, infection, and possibly leading to amputation of the lower limbs.
- Patients with diabetes require ongoing medical care and a high level of self-care. Poverty, low educational attainment, and cultural practices may limit utilization of traditional health systems and adherence to advised medical treatment.

Diabetes

The large Hispanic population contains risk factors known to lead to Type II diabetes, including obesity, overall body distribution of obesity, physical inactivity, and diet.

Tuberculosis

TB rates in the border area are more than three times higher than the State or the country. Counties with the highest rates include Yuma and Santa Cruz.



SOURCE: ARIZONA HEALTH STATUS AND VITAL STATISTICS, 1995

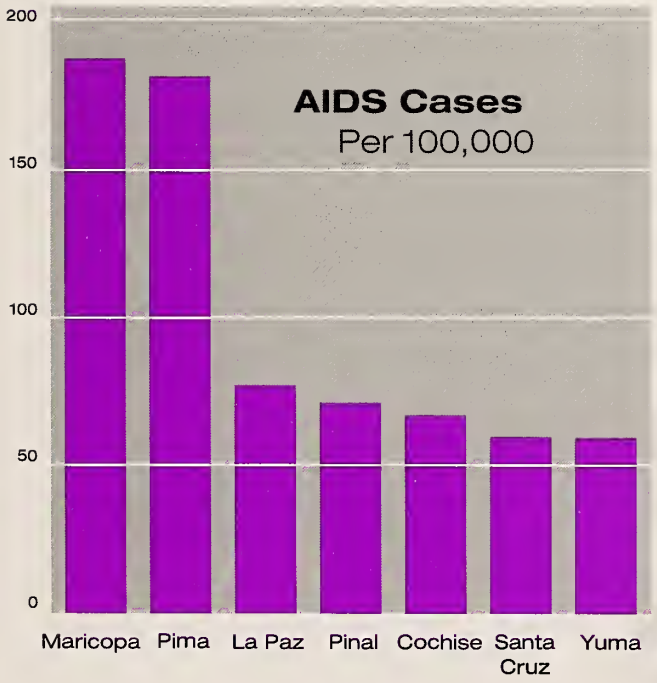
- Frequent cross-border travel and movement within the United States makes case finding, treatment, and follow up a challenge for health providers. Care is further hindered by difficulties accessing basic health services and patients interfacing with different health systems as they seek care on both sides of the border.

- Treatment for active TB requires an uninterrupted six-month period of oral medications. Multi-drug resistant tuberculosis (MDRTB) occurs when a patient begins but does not complete the treatment. Treating MDRTB can cost from $100,000 to $200,000 per case, which is prohibitive to overburdened health care services and individuals lacking sufficient health insurance.

- The treatment of TB in Mexico differs slightly in that only two types of drugs are used rather than the usual six drugs used in the U.S. This is mainly due to economic reasons.

HIV/AIDS

- Hispanics accounted for 23 percent of reported AIDS cases in Arizona in 1999.
- Among all of the counties in the State, border counties ranked in the top eight for AIDS case rates.
- Maricopa County ranked first with 4,496 cases and a rate of 187 per 100,000 population. Pima County ranked second with 1,360 AIDS cases at a rate of 181 cases per 100,000 population.
- Epidemiological data do not give the total picture of HIV/AIDS in the border area. Many experts believe that considerable under reporting occurs. Contributing factors include the multifaceted barriers to accessing care in the border area, frequent cross-border travel, patients who seek care in Mexico, and issues of culture and confidentiality.
- Effective methods that consider the cultural context and living conditions of border populations are needed to increase awareness and understanding of the prevention of HIV/AIDS transmission.



Child Health

Uninsured

- Children account for an estimated 29 percent of the uninsured population in the Arizona border region.
- More than one-third of children who are eligible for Medicaid but are not enrolled live in families where one or both parents are immigrants. More than 70 percent of immigrant children are Hispanic. Language barriers contribute to the low enrollment rate in Medicaid.

Vaccine Preventable Illnesses

- Border counties have some of the lowest immunization coverage rates in the State. Santa Cruz County has a coverage rate of 67 percent, and Pima County has a rate of only 40 percent compared to an immunization coverage rate of 72 percent for the State.
- Communities along the Arizona border with low coverage rates include Douglas (Cochise County) at 65 percent, Nogales (Santa Cruz County) at 67 percent, and Somerton/San Louis (Yuma County) at 64 percent.

Infant Mortality

- The infant mortality rate in Cochise County is significantly higher than the State at 12.5 deaths per 1,000 live births compared to 7.6 deaths per 1,000 live births for the State.

Lead Exposure

- In 1996, Yuma, Pima, and Maricopa counties accounted for 89 percent of the 288 lead-related cases reported Statewide. Of those cases, 66 percent were identified as Hispanic children.
- Children under six years of age are highly sensitive to lead exposure, which can cause serious and irreversible damage to the developing brain and central nervous system. Severe exposure can cause coma, convulsions, and death, while lower levels of exposure can cause learning disabilities, hearing problems, and behavior problems.
- Sources of lead exposure include paint, ceramics, pottery, folk remedies, and lead sources carried to the home via work clothing.

Environment

Pesticide Spraying Causes Illness

- Pesticide-related illnesses are important concerns in Yuma County, a large agricultural area where aerial spraying of pesticides occur year round. The potency of pesticides may last several days after spraying, and can drift into neighboring communities. Exposure can also occur through contact with contaminated clothing.

- Illnesses from pesticide exposure can be difficult to diagnose, the symptoms may be nonspecific, and often imitate other medical conditions. Long term effects of exposure are not well understood, although the reproductive systems may be vulnerable to chronic exposure.

Water Pollution

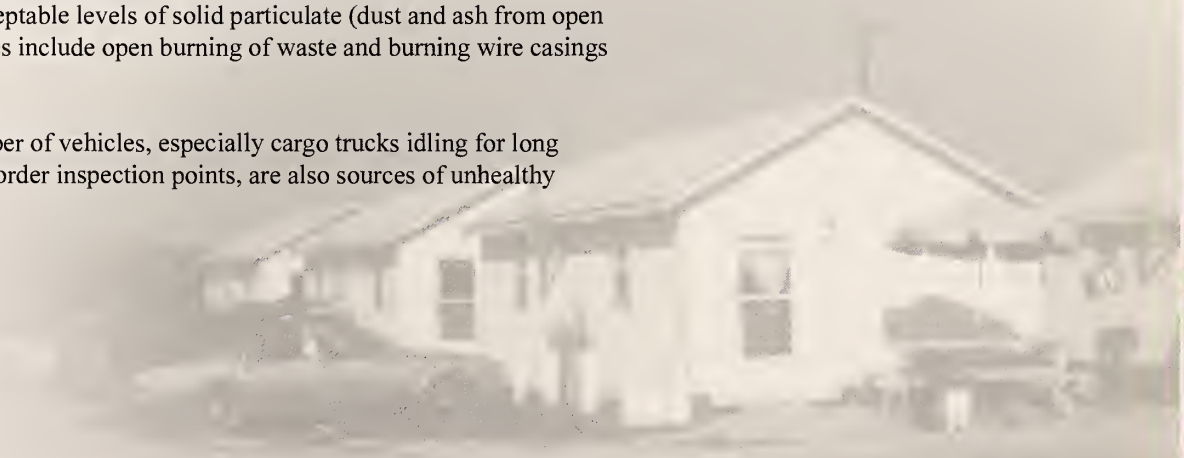
- High levels of fecal bacteria, ammonia, heavy metals, and parasites have been found in the Nogales Wash river, threatening the health of nearby residents.

- The San Pedro River in Naco, Arizona has a lead level 35 times higher than considered safe by the Federal Government. The San Pedro River's arsenic level is five times above the Federal limit. In addition, high lead levels have also been found in the soil near Douglas.

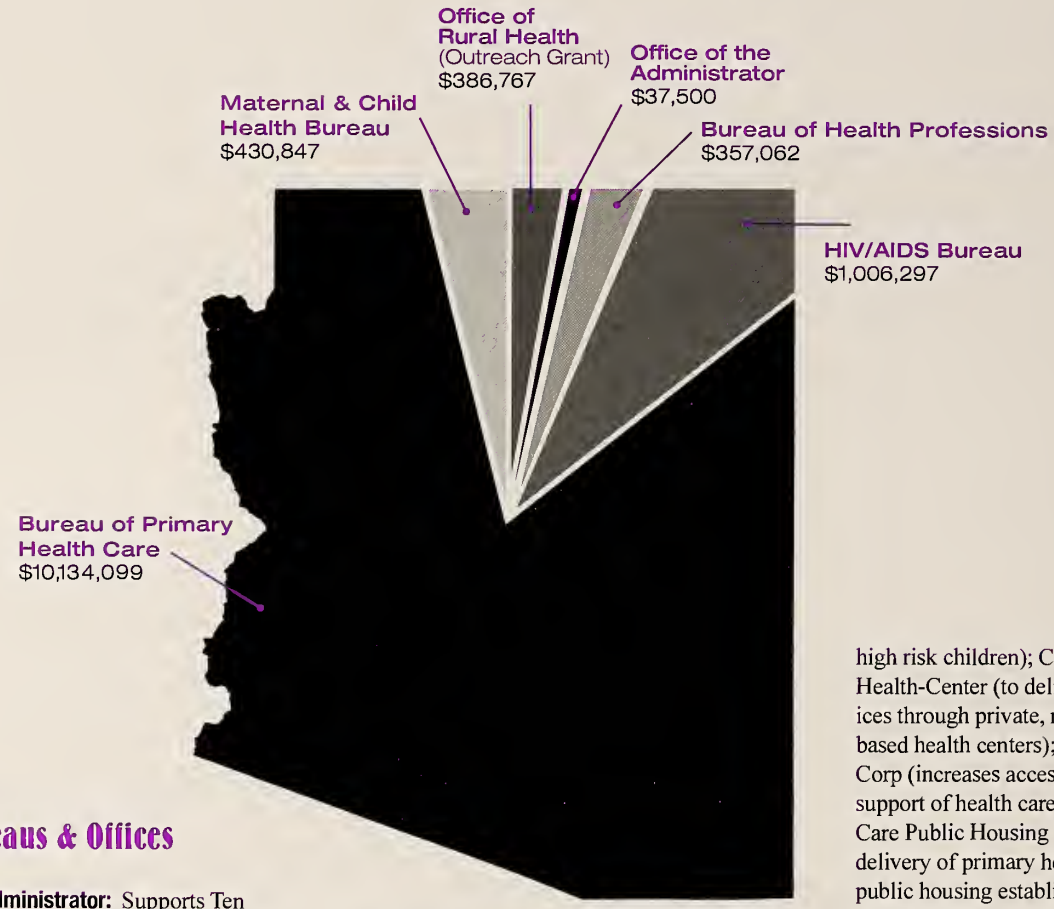
Air Pollution

- Air quality in the towns of Nogales and Douglas, and throughout Yuma County, exceed acceptable levels of solid particulate (dust and ash from open air burning). Sources include open burning of waste and burning wire casings for recycling.

- An increasing number of vehicles, especially cargo trucks idling for long periods of time at border inspection points, are also sources of unhealthy emissions.



HRSA Resources in the Arizona-Mexico Border Area



HRSA Bureaus & Offices

Office of the Administrator: Supports Ten Against TB, a binational partnership program among the four U.S. States and six Mexican States along the border to decrease the spread of tuberculosis through activities such as direct observed therapy and standard protocols.

Office of Rural Health: (Outreach Grant) Assists rural communities rebuild their health care services by supporting initiatives such as improving recruitment and retention of health professionals and demonstrating innovative models to address rural health problems. Outreach demonstration grants support delivery of health services through health education and promotion activities and other related services.

Bureau of Health Professions: Includes Nurse Practitioner/Nurse Midwife Training; Border Health Education & Training Centers; Health Careers Opportunities Program (to assist disadvantaged students in completing health professional studies); and Centers of Excellence (to assist eligible schools in supporting health professional programs for underrepresented minority students).

HIV/AIDS Bureau: Includes the Ryan White Title I (emergency assistance to qualified metropolitan areas for local planning councils and various services including primary care, and emergency financial case management); Title II (funding provided to States, AIDS Drug Assistance Program, and activities including home health insurance continuation and regional HIV care consortia); Title III (early intervention services, direct outpatient health services, and planning activities); Title IV (funding for Women, Children, Youth & Families, and Access to Research programs); and Special Programs of National Significance SPNS (demonstrations of innovative models of health and support for individuals with HIV).

Bureau of Primary Health Care: Includes Health Care for the Homeless (to coordinate and deliver health care services using a multidisciplinary approach to homeless individuals); Healthy Schools/Healthy Communities (to promote school-based health centers for providing comprehensive health services to high risk children); Community/Migrant Health-Center (to deliver primary health services through private, non-profit community-based health centers); National Health Service Corp (increases access through placement and support of health care providers); Primary Care Public Housing (to increase access to delivery of primary health care services at public housing establishments or other nearby locations); Border Vision Fronteriza (a three year demonstration project to increase access to primary health services through outreach and community education services utilizing lay health workers); and Data Infrastructure Contract (a three year demonstration contract to address issues of collecting health-related data and sharing information among entities in the border area).

Maternal & Child Health Bureau: Includes Title V Block Grants awarded to state governments to provide maternal and child health services such as prenatal care, school health, direct care and enabling services. Other various MCHB funds have been awarded to universities, community health centers, county health departments, and community coalitions in Arizona to facilitate outreach, teen abstinence, emergency medical services for children, provider training, dental sealant for children. There is also a Border Healthy Start infant mortality reduction planning project (the State's Arizona Cost Containment Ctr. is the grantee), as well as another Healthy Start project in the Phoenix area by the same grantee.

Sources for More Information

HRSA Border Health Unit
Bureau of Primary Health Care
Division of Programs for Special Populations
4350 East West Highway, 7th floor
Bethesda, Maryland 20814
Phone: 301-594-4897; Fax: 301-594-4997
Website: http://www.bphc.hrsa.gov/borderhealth

HRSA Office of Field Operations
Room 11-25
5600 Fishers Lane
Rockville, Maryland 20857
Phone: 301-443-7070; Fax: 301-443-2173

HRSA Border Health Program
San Francisco Field Office-Border Health Coordinator
Federal Office Building, 50 UN Plaza
San Francisco, California 94102
Phone: 415-437-8090; Fax: 415-437-8003
Phone: 619-692-5510; Fax: 619-692-8020

Environmental Protection Agency, Border XXI
National Health & Environmental Effects Research Laboratory MD 87
Research Triangle Park, North Carolina 27711
Phone: 919-541-2283; Fax: 919-541-4201

Centers for Disease Control and Prevention
Office of Global Health
4770 Buford Highway, N.E., MS-KO1
Atlanta, Georgia 30341-3724
Phone: 770-488-1072; Fax: 770-488-1004

Pan American Health Office
El Paso Field Office
6006 North Mesa, Suite 600
El Paso, Texas 79912
Phone: 915-581-6645; Fax: 915-833-4768

Arizona Department of Health Services
Border Health Office
3815 North Black Canyon Highway
Phoenix, Arizona 85015
Phone: 602-230-5808; Fax: 602-230-5959

References

Arizona Community Health Indicators, Border Health Foundation, January 1998

Arizona Health Education Center, University of Arizona

Health Education Training Center, University of Arizona

Arizona Department of Health, Office of Environmental Health, *Lead Poisoning Surveillance,* Annual Report, 1996

Arizona Department of Health, Office of Environmental Health, *Pesticide Poisoning Surveillance in Arizona,* Annual Report, 1996

Division of Shortage Designation, Bureau of Primary Health Care, HRSA

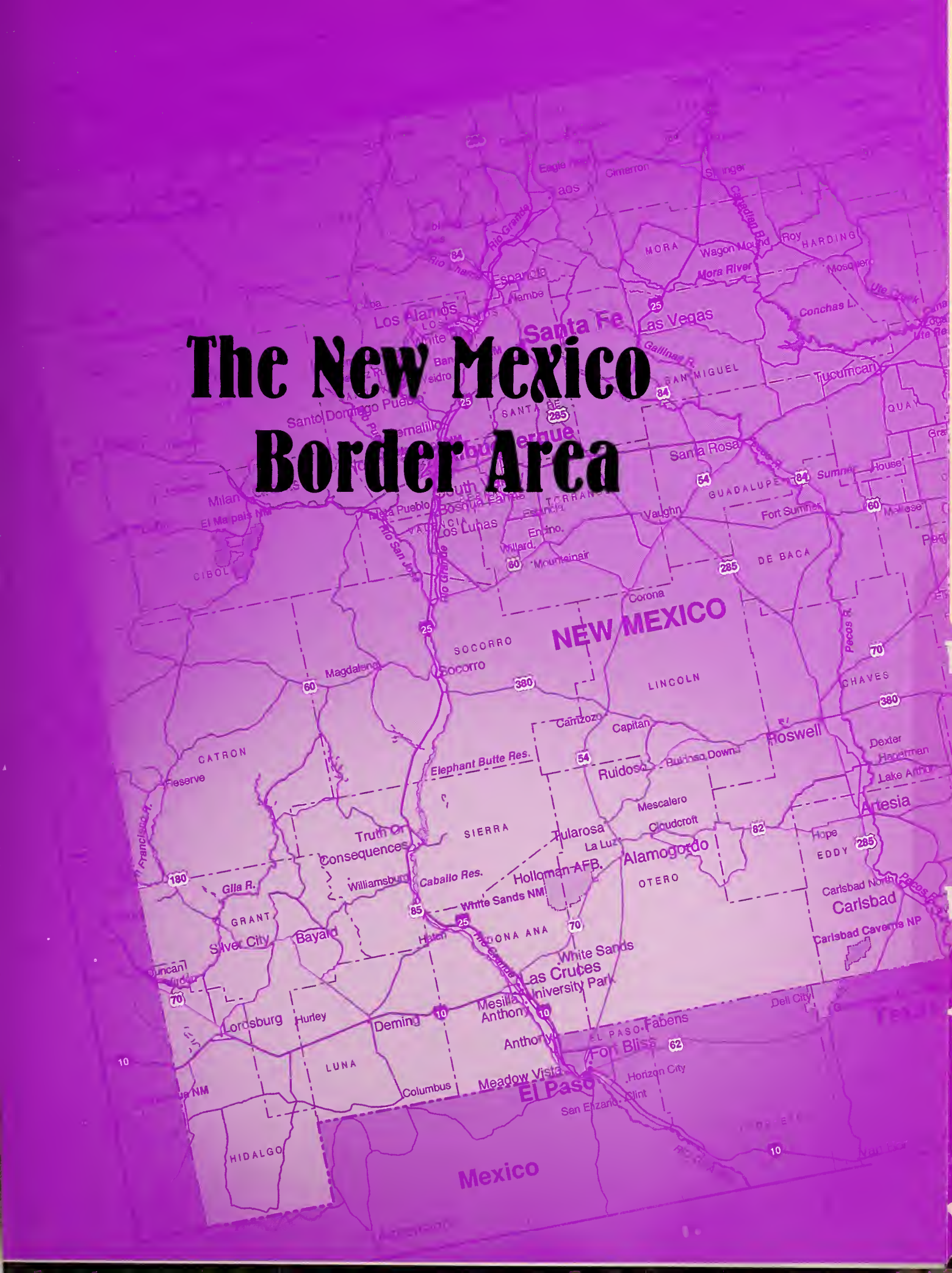
Environmental Protection Agency, Border XXI Report

General Accounting Office, *Report on the Demographics of Medicaid Eligible Unenrolled Children,* 1998

U.S.A. Counties, 1996

Population Estimates Program, Population Division, Bureau of Census

The New Mexico Border Area



new mexico

texas

The New Mexico Border Area

New Mexico Border Demographics

- The 167 mile-long New Mexico-Mexico border area is comprised of five counties: Doña Ana, Luna, Sierra, Hidalgo, and Grant. The area is largely rural desert and is sparsely populated. Doña Ana County has the largest population at 169,165. Communities adjacent to the border include Sunland Park (Doña Ana County), Columbus (Luna County), and Antelope Wells and Cloverdale (Hidalgo County).

- Neighboring communities have developed adjacent to one another on both sides of the border, and are referred to as "sister cities." In New Mexico these include Columbus/Palomas and the Las Cruces/ElPaso/Juarez area. Although Las Cruces is not directly adjacent to the border, it is part of a busy "corridor" area in which people move between Mexico and the United States.

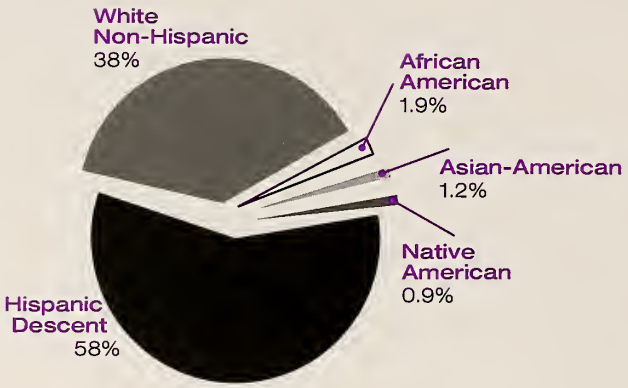
- The city of Las Cruces, in Doña Ana County, is the region's only major urban area. The community of Sunland Park has grown considerably in recent years with the influx of retirees.

- Twenty-one percent of the border county population lives within one or two blocks of agricultural lands. In the past decade, the border area has witnessed a dramatic increase in the number of dairy and poultry farms.

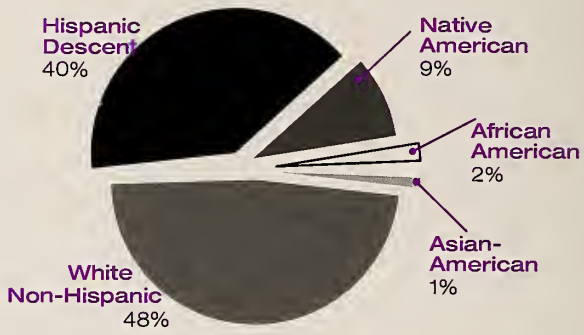
Rapidly Growing Population

- Between 1990 and 1998, the population of Luna County grew by nearly 33 percent compared to 14.6 percent for the State. Doña Ana County grew by 24.8 percent during the same time period.

Ethnicity



Ethnicity in Doña Ana County



Ethnicity in New Mexico

SOURCE: U.S. BUREAU OF THE CENSUS/BUREAU OF BUSINESS & ECONOMIC RESEARCH AT THE UNIVERSITY OF NEW MEXICO

Educational Attainment

- In 1995 in Luna County, 41.3 percent of adults over the age of 25 did not have a high school diploma or GED. Luna County had a 1996-97 high school dropout rate of 19.9 percent, the highest in the State.

Access to Primary Health Care Services

Financial Barriers

Lack of Health Insurance

- An estimated 30 percent of the population in the New Mexico border area is uninsured or underinsured.

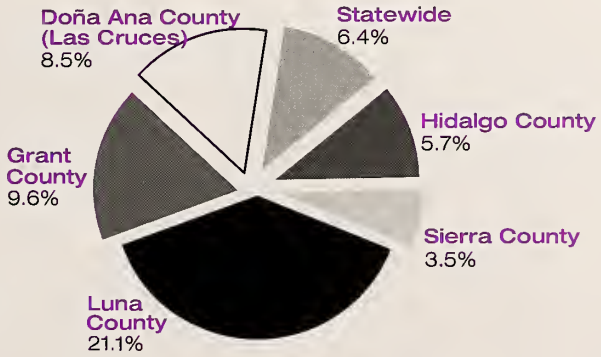
Poverty

- In Luna County, 32 percent of the population lives at or below the poverty level.
- In Doña Ana County, 27 percent of the population lives at or below the poverty level. Also in Doña Ana County, 41.3 percent of children under the age of 18 live in families at or below the poverty level.
- The median household income in the border area is $14,000 compared to $16,346 for the State.

Unemployment Rates are Higher

- In 1996, Luna County had an unemployment rate of 28.2 percent, the highest in New Mexico, and four times higher than the State and Nation.

Unemployment Rates in Border Counties
Revised July 1999 figures (not seasonally adjusted)



SOURCE: NEW MEXICO DEPARTMENT OF LABOR

Non-Financial Barriers

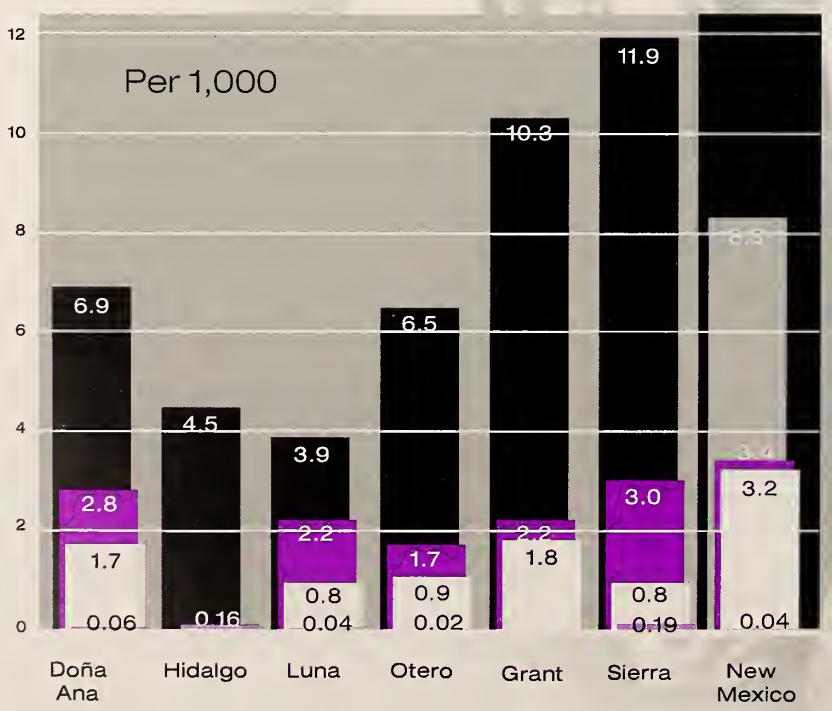
Shortage of Health Care Professionals

- The physician/population rate on the border ranges from a high of 1.8 physicians per 3,000 population to a low of 0.8 physicians per 3,000 population, compared to a State rate of 3.2 physicians per 3,000. The border counties also have fewer Registered Nurses and Licensed Practical Nurses, with the lowest percentages located in Hidalog and Luna counties.
- All six border counties (including those bordering Texas) are designated by the Federal Government as health professional shortage areas (HPSA) for primary medical services, indicating a ratio of less than one health professional per 3,000 people. Four border counties have the entire county designated as a HPSA while two counties have partial county designations.

During the non-harvest season, more than one-third of Luna County residents are unemployed. For many who live in poverty, the income made during harvesting season must last for the entire year.

SOURCE: U.S. DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS, APRIL 1999

Health Care Resources and Services in Border Counties, 1995



- *Nurses Licensed (RN &LPN)*≠*
- *Hospital Beds**§*
- *Active Licensed Physicians*†§*
- *Clinics**§*

SOURCES:
*DEPARTMENT OF HEALTH/DHI/HEALTH FACILITY LICENSING AND CERTIFICATION BUREAU.
§ACCESS, FINANCING, DELIVERY AND OUTCOMES NEW MEXICO HEALTH POLICY COMMISSION, 1997 EDITION.
†COUNTY PHYSICIANS FIGURES FROM NEW MEXICO MEDICAL EXAMINERS BOARD.
≠COUNTY NURSE FIGURES FROM THE GOVERNORS' REPORT, JUNE 30, 1997.

Health Disparities

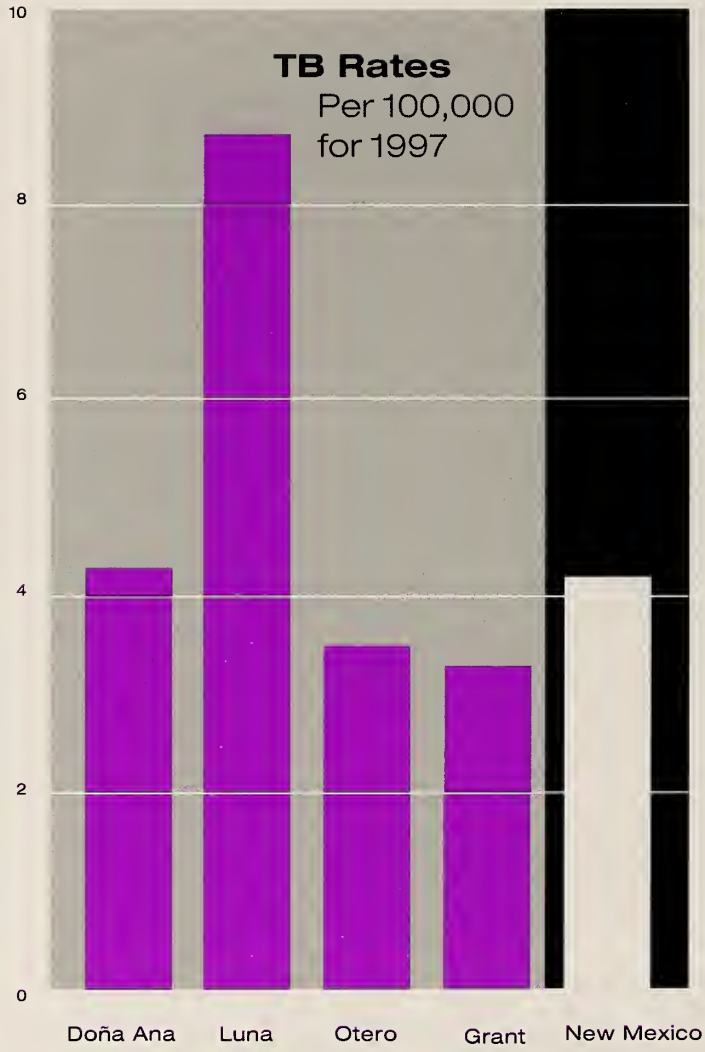
Diabetes

- The mortality rate from diabetes mellitus, for both males and females, is higher in Doña Ana County than the rest of the State. For males in Doña Ana County, the mortality rate is 37.3 deaths per 100,000 population, compared to 24.8 deaths per 100,000 Statewide. For women in Doña Ana County, the mortality rate is 45 per 100,000 population, compared to 33.5 deaths per 100,000 Statewide.
- The area's large Hispanic population contains risk factors known to lead to Type II diabetes, including obesity, overall body distribution of obesity, physical inactivity, and diet.
- More than one in every three people in Doña Ana County report obesity compared with one in every five people for the State.
- Higher rates of micro-vascular complications (damage to small blood vessels) occur among diabetic Mexican-Americans than Non-Hispanic whites.
- People with diabetes are more likely to suffer from damage to the eyes (retinopathy) and kidneys (nephropathy). Nerve damage leading to loss of sensation in the feet also occurs more often among diabetics, putting them at risk for injury, infection, and possibly leading to amputation of the lower limbs.
- Treatment of diabetes requires ongoing medical care, as well as a high level of self-care. Poverty, low educational attainment, and cultural practices may limit utilization of traditional health systems and adherence to advised medical treatme

Diabetes is two to three times more prevalent among Mexican-Americans than Non-Hispanic whites.

Tuberculosis

Luna County has a TB rate more than twice that of the State, at 9 reported incidents per 100,000 population compared to a State rate of 4 incidents per 100,000 population.



Hidalgo and Sierra counties reported 0 rates

SOURCE: NEW MEXICO DEPARTMENT OF HEALTH

- Frequent cross-border travel and movement within the United States makes TB case finding, treatment, and follow up a challenge for health providers. Treatment is further hindered by economic and cultural barriers to accessing basic health care services, and by patients interfacing with two different health systems as they seek care on both sides of the border.

- Treatment for active TB requires an uninterrupted six-month period of oral medications. Multi-drug resistant tuberculosis (MDRTB) occurs when a patient begins but does not complete the treatment. Treating MDRTB can cost from $100,000 to $200,000 per case, which is prohibitive to overburdened health care services and individuals lacking sufficient health insurance.

- The treatment of TB in Mexico differs from the United States in that only two types of drugs are used in Mexico, rather than six in the United States. This is mainly due to economic reasons.

HIV/AIDS

Spread of HIV/AIDS in the New Mexico Border:

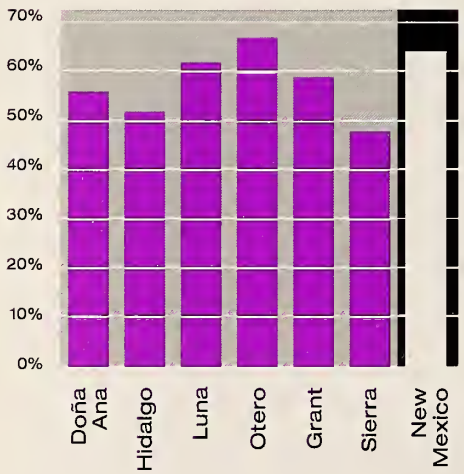
- The cumulative AIDS cases are 1,046 for the State. Of these, 30 percent are among Hispanics compared to 21 percent for the country.
- Epidemiological data do not give the total picture of HIV/AIDS in the border area. Many experts believe that considerable under reporting occurs. Contributing factors include the multifaceted barriers to accessing care in the border area, frequent cross-border travel, patients who seek care in Mexico, and issues of culture and confidentiality.
- Effective methods that consider the cultural context and living conditions of border populations are needed to increase awareness and understanding of the prevention of HIV/AIDS transmission.
- Men who have sexual relations with men and intravenous drug use are identified as the leading risk factors associated with HIV infection.
- Other factors include a high teen pregnancy rate among Hispanic females, and a general lack of knowledge regarding risk factors for HIV infection.

Child Health

Prenatal Care and Physicians Attending Births

- Physicians attend 47 percent of births in Doña Ana County and 50 percent of births in Sierra County compared to 76 percent of births for the State.
- Nurse Midwifes attended 44.4 percent of births in Doña Ana County compared to 17.3 percent of births for the State.
- The percentage of women delivering with no prenatal care or who start care in the first trimester, is above the State average. In 1996 in Luna County, 55.6 percent of mothers received little or no prenatal care, compared to the 1997 national rate of 4 percent.

Immunization Coverage Rate at 24 Months, 1996-1997



SOURCE: NEW MEXICO DEPARTMENT OF HEALTH

Vaccine Preventable Illnesses

- Immunization coverage rates are lower in border counties than in the rest of the State. Coverage rates range from 48 percent in Sierra County to 62 percent in Luna County compared to 64 percent immunization coverage rate for the State.

Teen Pregnancy Rates

- Teen pregnancy rates on the border are higher than the rest of the State. Luna County had the highest teen birth rate in the State with 95.5 births per 1,000 teen mothers, compared to the State rate of 39 births per 1,000 teen mothers.
- High teen birth rates also are found in Doña Ana County, with 43.0 births per 1,000 teen mothers, and Sierra County, with 59.4 births per 1,000 teen mothers.

Infant and Child Mortality

- In 1995, Sierra County had an infant mortality rate three times that of the rest of the State at 18 deaths per 1,000 live births compared to six deaths per 1,000 births for the State.
- In Luna County between 1994-96, the child mortality rate (ages 1-14) for all causes was 67.2 deaths per 100,000 children. This compares to 32.7 deaths per 100,000 children in New Mexico and 28 deaths per 100,000 in the United States.
- Low birth weight newborns (less than 2,500 grams) accounted for 13 percent of births in Hidalgo County and 8.1 percent of births in Sierra County compared to 8 percent for the State.

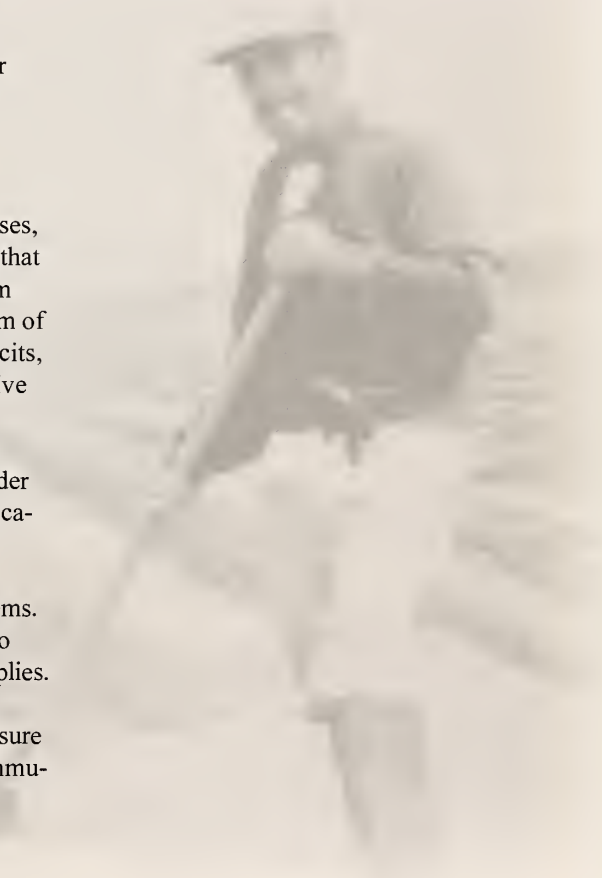
Environment

Water Pollution

- Because of water shortages, New Mexico border residents are beginning to rely on surface water rather than ground water for their drinking water source. The use of surface water for drinking water can increase exposure to infectious organisms.
- About 19 percent of New Mexico border residents receive drinking water from non-regulated, private drinking water wells. Many of these wells are drilled within the upper aquifer and have a greater possibility for contamination.
- Studies have identified high levels of fecal bacteria, several types of viruses, and various compounds such as lead, arsenic, and uranium in well water that are above EPA acceptable standards. Serious consequences resulting from lead exposure include damage to the developing brain and nervous system of children. Low level exposure can cause behavior problems, learning deficits, and hearing problems. For adults, lead exposure can affect the reproductive and nervous systems, and kidneys.
- Approximately 10 percent of the private drinking water wells within border counties also tested positive for total coliform and fecal coliform, an indicator of contamination by animal or human waste.
- Approximately 27 percent of border residents are connected to septic systems. Many are installed in shallow ground water aquifers and can contribute to increased nitrate and heavy metal concentrations within drinking water supplies.
- Hepatitis A, Shigellosis, and parasitic infections—all associated with exposure to contaminated water and inadequate sanitation—are higher among communities in the New Mexico border area compared to the rest of the State.

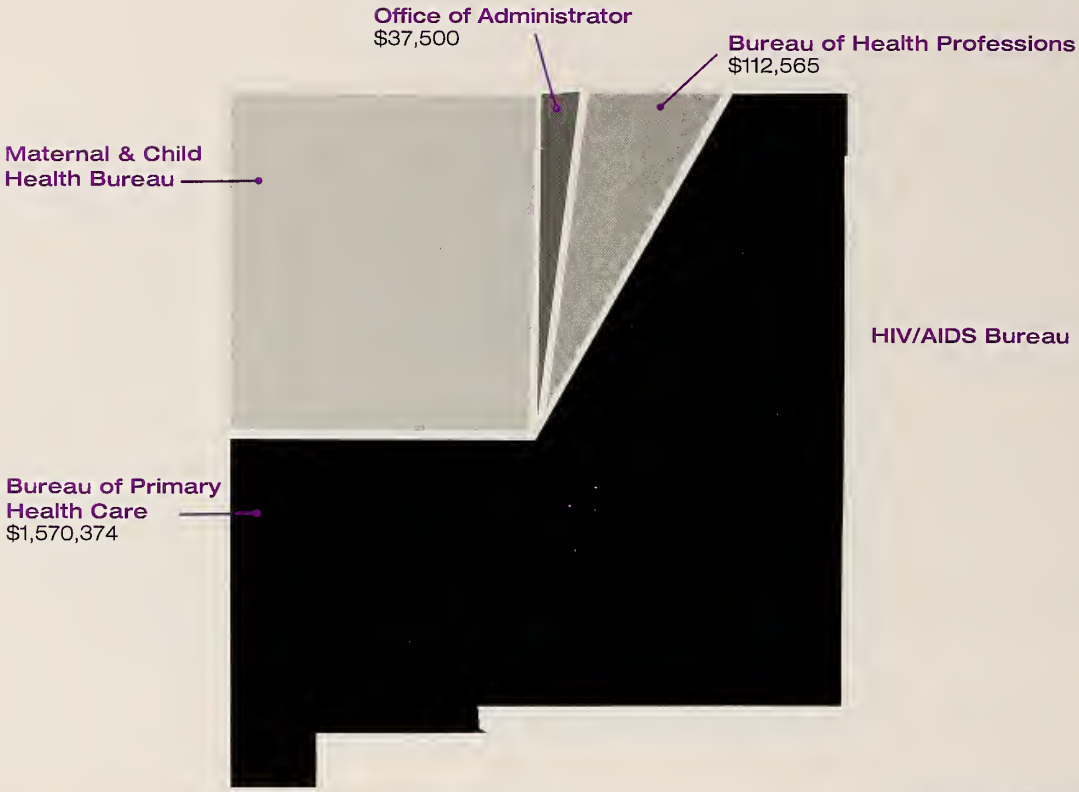
Air Pollution

- A growing population and increasing industrialization have affected air quality on the border. The El Paso, TX/Sunland Park, NM area has been designated by the EPA as a critical area for air quality monitoring. The main pollutants include particulate matter from open air burning of trash and solid waste, carbon monoxide, and ozone.
- Traffic congestion also contributes to air pollution. Increasing numbers of vehicles idling for long periods of time at the busy El Paso, TX/Juarez, Mexico port of entry, unpaved roads, and older model cars are sources of unhealthy emissions.
- Thirty-five percent of border county residents say that dust has contributed to increased upper respiratory infections and more severe respiratory illnesses.
- Within the past year, 9 percent of border county residents have experienced asthma.



Numerous colonias have developed in Doña Ana County. Colonias are settlements in unincorporated areas that do not have access to a sanitary water supply, proper sewage disposal, or paved roads. Contamination of groundwater has occurred due to soil saturation from untreated sewage and inadequate handling of hazardous waste.

HRSA Resources in the New Mexico-Mexico Border Area



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Sources for More Information

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Environmental Protection Agency, Border XXI
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Centers for Disease Control and Prevention
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Pan American Health Office
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New Mexico Department of Health
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1170 N. Solano, Suite L
Las Cruces, New Mexico 88001
Phone: 505-528-5156; Fax: 505-528-6045

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Hispanic Health and Nutrition Examination Survey.

Population Estimates Program, Population Division, Bureau of Census

The Texas Border Area

texas

The Texas Border Area

Texas Border Demographics

- The 1,000 mile-long Texas border area extends from El Paso in the northwest to Brownsville in the southeast. The border area includes 32 counties with an estimated population of more than 2 million people.
- Neighboring communities have developed on both sides of the border and are referred to as "sister city" communities. There are six sister city communities located along the Texas border area, out of a total of 12 sister cities borderwide. These are El Paso/Juarez, Del Rio/Acuña, Eagle Pass/Piedras Negras, Laredo/Nuevo Laredo, McAllen/Reynosa, and Brownsville/Matamoros.

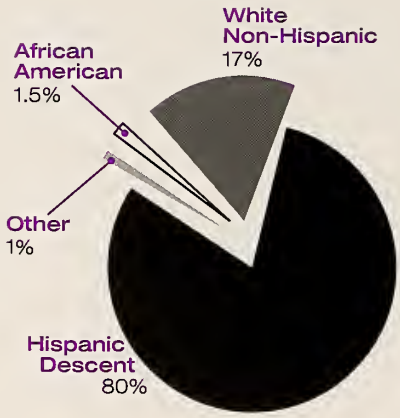
- The Texas border area is largely rural, with 28 of the 32 counties considered non-metropolitan areas.
- Major urban centers include El Paso, Laredo, McAllen/Mission, and Brownsville/Harlingen.
- Approximately 74 percent of the Texas migrant/seasonal farmworker population of 500,138 resides in the border counties, with 41 percent in Hidalgo, 10 percent in Cameron, 6 percent in Starr, 4 percent in Maverick, and 13 percent in all other border counties.

Rapidly Growing Population

- The fertility rate in the border area is 106.7 births per 1,000 women compared to 74.3 births per 1,000 women for the State.
- International migration accounts for 29 percent of growth in the area.
- Laredo is the second fastest growing city in the country.
- The counties of Hidalgo, Starr, Webb, and Zapata each have a population growth of more than 18 percent compared to 9.2 percent for State.

Population is Predominantly Hispanic

- Hispanics of Mexican descent account for approximately 80 percent of the border area population. The Tigua and Kikapoo Indian Tribes also are located in the Texas border area.



Hispanic Population is Largest Ethnic Group

SOURCE: TEXAS DEPARTMENT OF HEALTH, 1997

Educational Attainment

- About one third of the Texas border population has not completed high school.

Colonias—Rural Settlements Lacking Basic Services and Sanitation

- The Texas border area is unique for its large number of colonias, unincorporated settlements that lack proper sewage disposal, running water, and electricity. The border area has approximately 1,500 colonias with an estimated population of 350,000.
- Inadequate waste disposal systems, such as outhouses and open cesspools, frequently overflow and leak human waste in populated areas.
- Drinking water often must be hauled long distances, and water from local rivers often is the source for drinking, bathing, and cooking.
- Most roads are unpaved and become impassable with rainfall.

Migrant/seasonal farmworkers make up about 20 percent of the border area population.

Access to Primary Health Care Services

Financial Barriers

The Texas border area experiences greater financial and non-financial barriers to primary health care services than the rest of the State.

Lack of Health Insurance

- An estimated 32 percent of Texas border residents have no health insurance.
- Many of the uninsured come from working families with low-to-moderate incomes, but do not have access to health benefits through their work, or can not afford insurance premiums.

Extreme Poverty

- The border poverty rate is 29.5 percent compared to 19.6 for the State. Twenty-one of the 32 counties are classified as having persistent poverty.
- The average per capita income in the Texas border area is $15,000 compared to $21,000 for the State and $23,200 for the country.
- Three Texas border counties are among the five poorest counties in the country.
- The 1997 unemployment rate in the Texas border area was 14.5 percent, more than twice as high as the State rate of 6 percent.

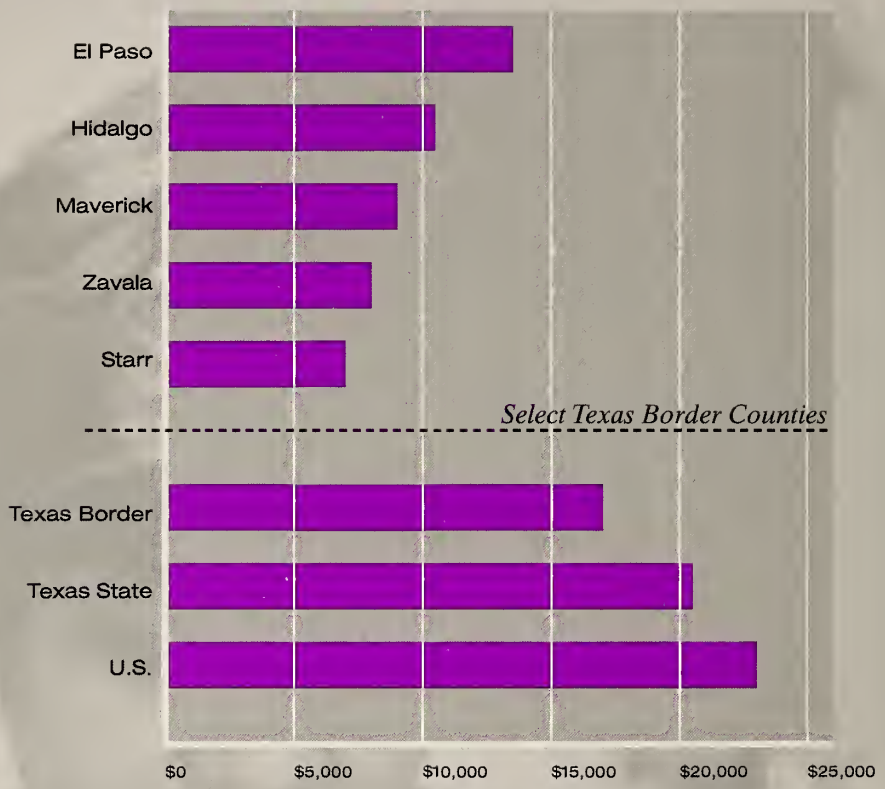
Non-Financial Barriers

Shortage of Health Care Professionals

- Twenty-eight of the 32 border counties are considered health professional shortage areas (HPSA), indicating a ratio of less than one health care professional per 3,000 people.
- The workload of health care professionals in the Texas border area is greater than in the rest of the State.
- There is a shortage of bilingual/binational health care professionals.
- Continued population growth from high birth rates and immigration will further stress already limited resources.

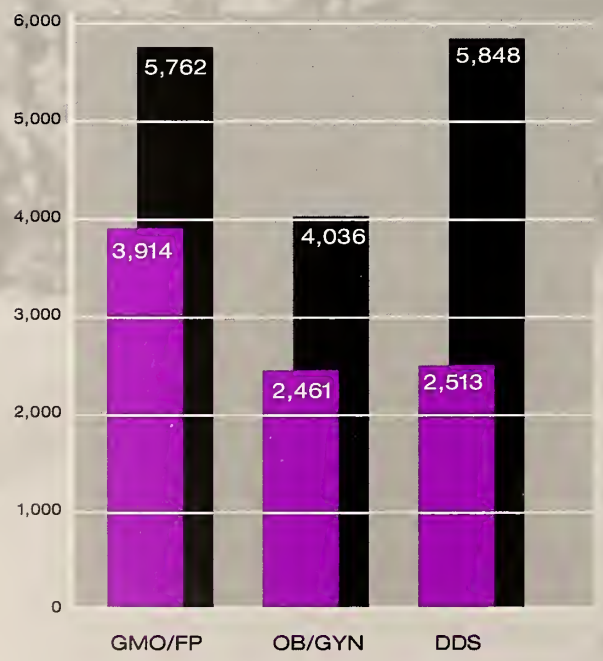
Lack of Transportation to Health Services

- Few public transportation systems exist to transport people from sparsely populated regions of the border area to hospitals or other health providers. Remote areas such as colonias have unpaved roads.



SOURCE: TEXAS COMPTROLLER, 1998

Starr, Zavala and Maverick counties rank as the 3rd, 4th, and 5th poorest counties in the United States.



Number of Patients Attended to per Medical Doctor

- *Texas Border*
- *Texas State*

SOURCE: TEXAS HISPANIC EDUCATION TRAINING CENTER, 1995

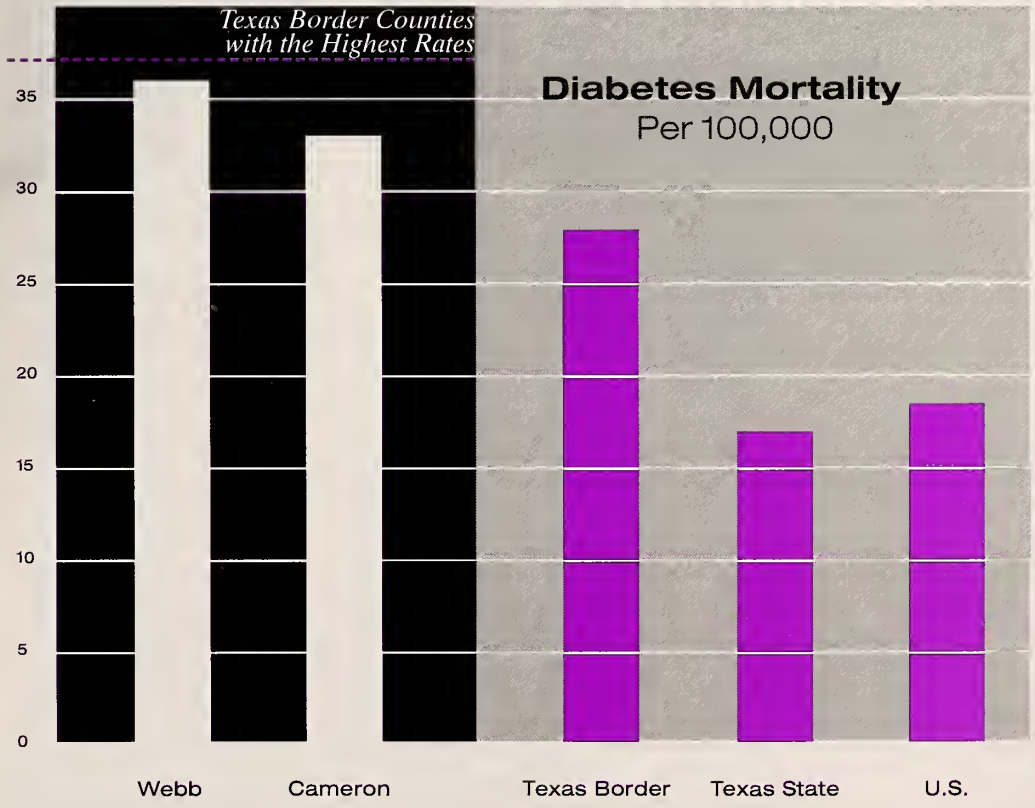
Health Professionals In the Texas Border Area Have Higher Workloads

Health Disparities

- The diabetes mortality rate in the Texas border area is nearly 50 percent higher than the rest of the country.
- Higher rates of micro-vascular complications are reported in diabetic Mexican-Americans than in Non-Hispanic whites who have the disease. It is speculated that the higher rates may be due to a combination of factors including difficulties accessing health care, cultural beliefs and practices, and a lack of knowledge regarding health maintenance.
- Risk factors for diabetes include the prevalence of overall obesity among Mexican-Americans, body distribution of obesity, and inactivity.
- Diabetes is two to three times more prevalent among Mexican-Americans than Non-Hispanic whites.

Diabetes

Treatment of diabetes requires close medical follow-up and a high degree of medical care and self-care. Poverty, poor education, being uninsured, and cultural practices may limit utilization of traditional health systems and compliance with medical treatment.

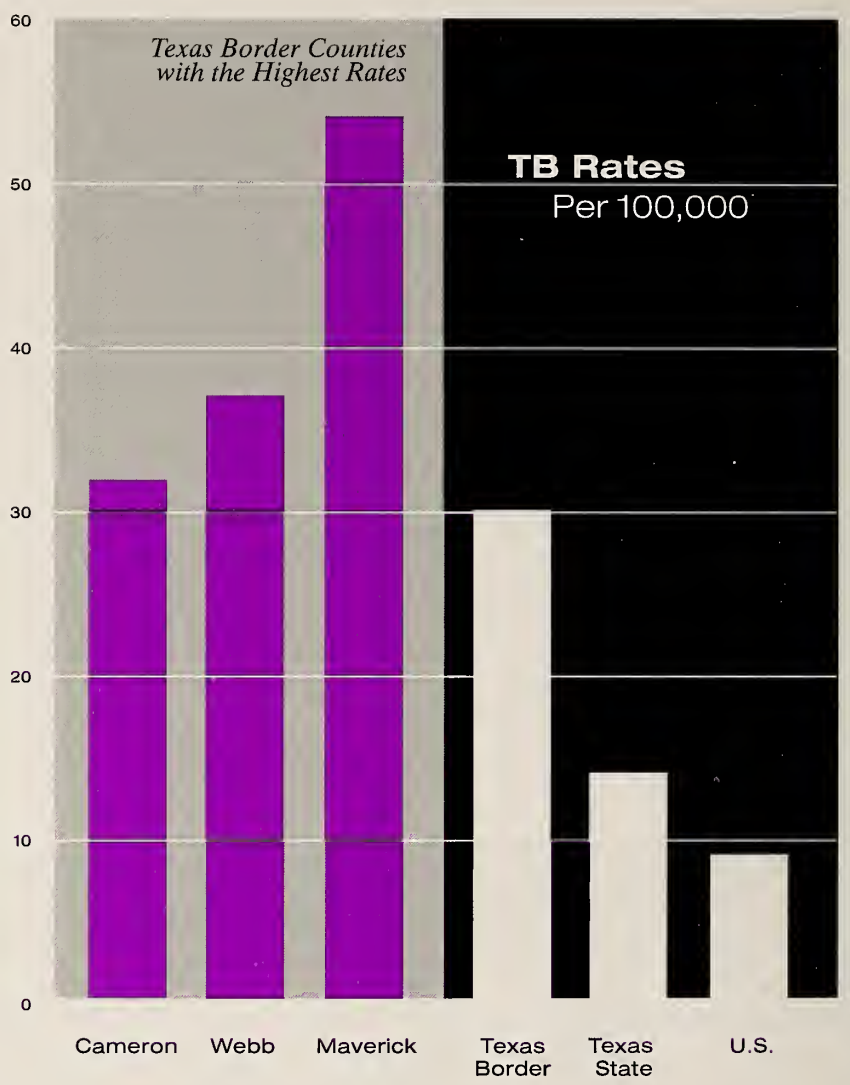


SOURCE: TEXAS COMPTROLLER OF PUBLIC ACCOUNTS & TEXAS HEALTH DEPARTMENT, 1996

SOURCE: SISTER COMMUNITIES PROFILES, 1991; TEXAS HEALTH DEPARTMENT, 1995

Tuberculosis

Tuberculosis rates in Texas border counties average nearly two times higher than rates for the rest of the State and the general population.



SOURCE: ESCOBEDO AND COSIO, 1997

- Rates of multi-drug resistant tuberculosis (MDRTB) among Texas border counties range from 6 to 20 percent, more than three times higher than the State's average of 6.7 percent.
- Treatment for active TB requires an uninterrupted six-month period of oral medications. MDRTB occurs when a patient begins but does not complete the treatment. Treating MDRTB can cost from $100,000 to $200,000 per case, which is prohibitive to overburdened health care services and individuals lacking sufficient health insurance.
- Frequent cross-border travel and migration within the United States make case finding, treatment, and follow-up care difficult. Other barriers to accessing health care, such as poverty, poor education, and lack of insurance, further hinder treatment, and can lead to the international spread of the disease.

HIV/AIDS

- The number of AIDS cases in the El Paso area has risen from 91 cases in 1994 to 127 cases in 1997.
- Rates of infection are expected to increase given a rapidly growing young population with multiple risk factors such as
    - early onset of sexual activity;
    - a high teen pregnancy rate;
    - alcohol and substance abuse;
    - living in areas with high rates of sexually transmitted diseases (El Paso); and
    - a lack of information about HIV risks and how it is transmitted.
- Although the rate of AIDS among the U.S. border population is lower compared to the general population, many experts feel that under reporting occurs. This may be due to a combination of factors, including the many barriers in accessing health care in the border area, frequent cross-border travel and migration within the United States, poverty, poor education, and lack of insurance.
- Studies have shown that Hispanic women in the border area tend to be less informed and have greater misconceptions about HIV transmission. They may also be less likely to seek out information on HIV prevention.

Child Health

Uninsured

Nearly 200,00 children living in the border area are without health insurance. (Hispanic Education Training Center 1997)

- Approximately 60 percent of uninsured children in Texas are Medicaid eligible.
- More than one third of Medicaid eligible children live in immigrant families, and over 70 percent of children in immigrant families are Hispanic.
- Hispanic children have the highest uninsured rate in the country at 29 percent.
- Barriers to enrolling children into Medicaid or other programs include the immigration status for one or both parents, and cultural and language differences.
- Children with health insurance are more likely to receive primary health services. Educators have found that students who have their basic health needs met spend more time in school, are more motivated and attentive, and better able to reach their full potential.

Vaccine Preventable Illnesses

- The rate for measles among border counties range from 30 to 141 cases per 100,000 population compared to the rate in the country of 11 cases per 100,000.
- Webb County experienced a measles rate nearly 14 times the national rate when an outbreak occurred in a neighboring Mexican jurisdiction. Measles can cause high fever and diarrhea, which can be fatal in infants if not managed carefully.

Vaccine preventable illnesses occur disproportionately among children in the Texas border area.

- Four of the six sister city communities in the Texas border area had twice the number of mumps cases compared to the national rate. Mumps have occurred in highly vaccinated populations indicating that transmission can be sustained by a few unvaccinated people.
- Two of the six sister city communities in Texas (located in Maverick and Webb counties) have rubella rates higher than the rest of the country. In the past, the rubella vaccine has not been routinely administered in Mexico.
- Factors which contribute to incomplete immunization coverage and the spread of vaccine preventable illnesses include cross-border migration, difficulty accessing basic health services, and differences between the United States and Mexico on the type and schedule of immunizations administered.

Environment

Inadequate Sewage Disposal

- Millions of gallons of raw sewage dumped daily into various rivers along the Texas-Mexico border create serious health hazards. Fecal bacteria counts in some parts of the Rio Grande are as high as 22,000 per milliliter (200 is considered unsafe for swimming). Fatalities have resulted from exposure to contaminated water.

- Colonias without proper sewage systems frequently use open cesspools or other inadequate means to dispose of sewage. Leakage of human waste often occurs, creating health hazards for the community, especially for children who play nearby. Fatalities have resulted from children falling into open drainage ditches or outhouses.

Infections Caused by Pollution

- Border populations experience higher rates of infection than the State as the result of poor sanitary conditions.

- The rate of amebiasis, a gastrointestinal disease transmitted through contaminated food and water and the fecal-oral route, is highest in Cameron and Hidalgo counties where the most colonias are located.

- The overall rate of Hepatitis A, which causes inflammation of the liver, is more than three times higher among Texas border counties than the rest of the country.

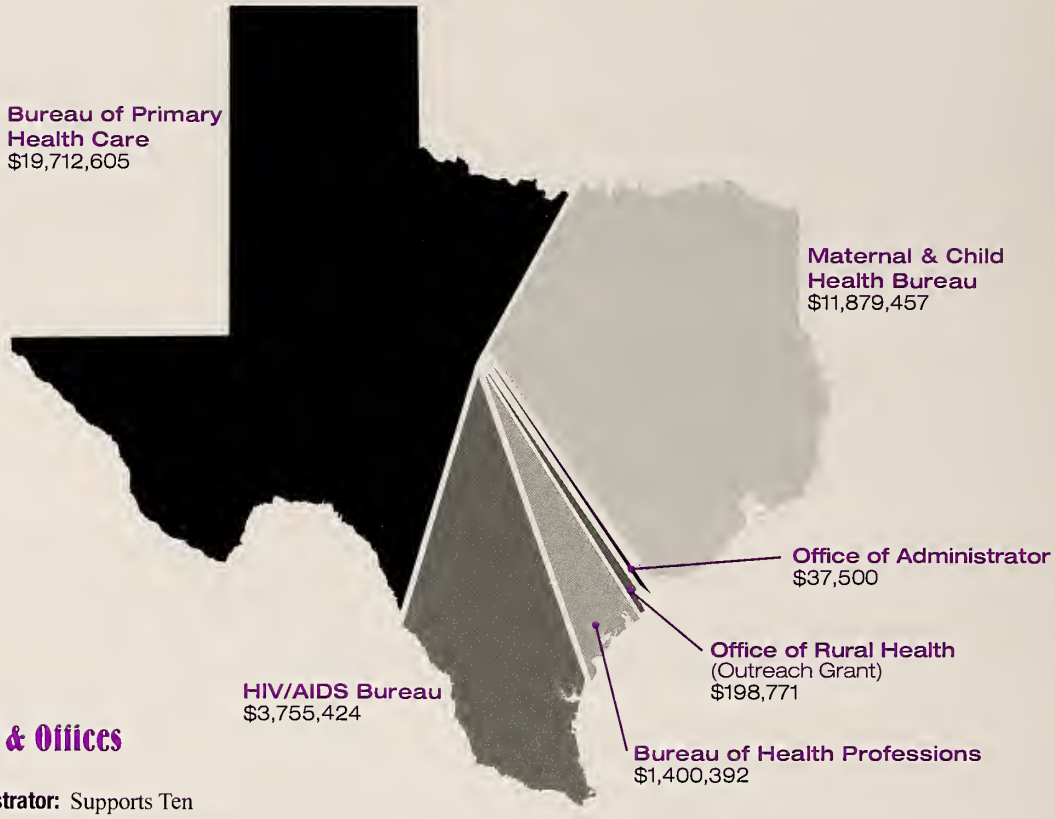
- The morbidity rate of Shigellosis, an acute gastrointestinal bacterial disease spread by feces of infected people, is two to 10 times higher among U.S. border counties than the rest of the country, and is even higher than in neighboring Mexican jurisdictions.

Air Pollution

- Environmental problems in the Texas border area are not confined to waterborne or foodborne illnesses. Serious air pollution problems exist in the El Paso/Juarez/Doña Ana region. Hospital admissions for respiratory illnesses increase during the winter months when carbon monoxide levels tend to be higher.

Higher rates of Hepatitis A and other gastrointestinal illnesses occur among more Texas border communities than among the general population.

HRSA Resources in the Texas-Mexico Border Area



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Sources for More Information

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